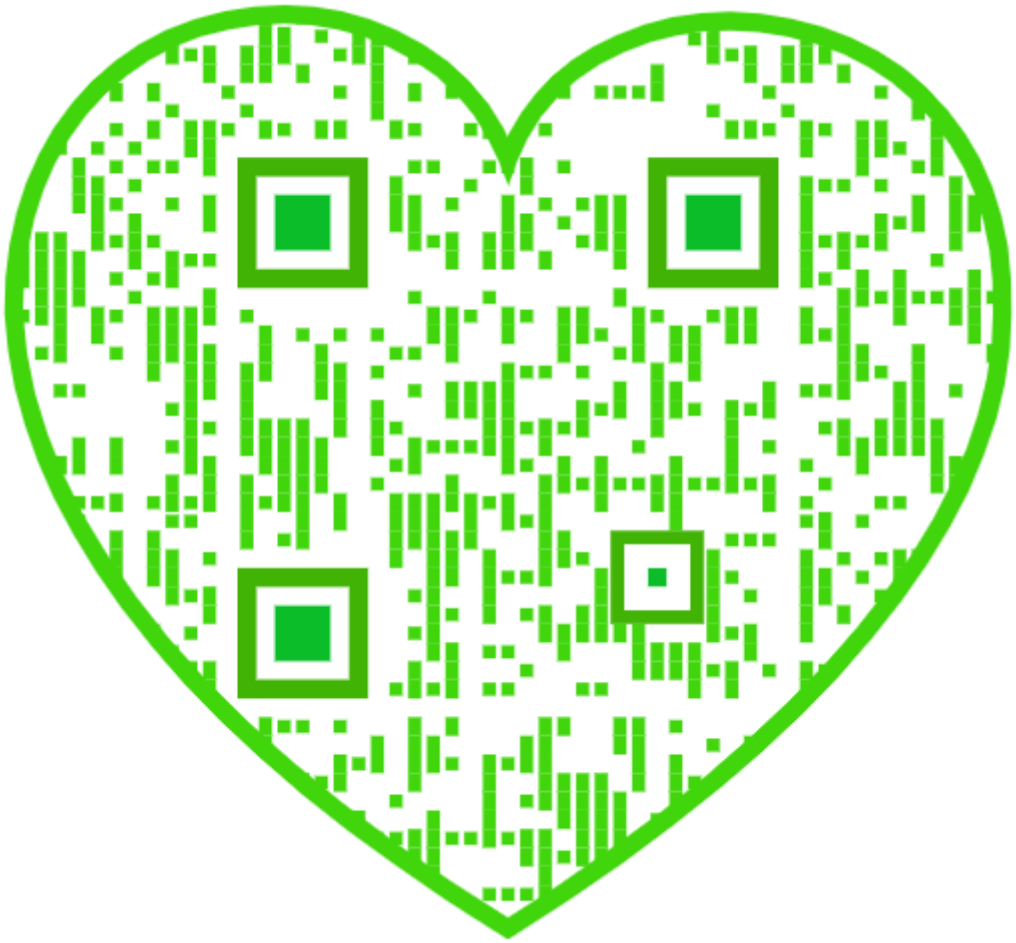

MATERIALS FOR THE STUDY OF ECONOMICS

PRINCIPLES OF MONEY AND BANKING

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PRINCIPLES OF MONEY AND BANKING

A SERIES OF SELECTED MATERIALS, WITH EXPLANATORY INTRODUCTIONS

BY

HAROLD G. MOULTON

THE UNIVERSITY OF CHICAGO PRESS
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PREFACE

This volume is the result of four years of experimentation in the teaching of an introductory course in Money and Banking. It is not a book of collateral readings or materials in the ordinary sense, but is designed to serve the purpose of a text and at the same time to give the student a breadth of view, a contact with reality, a stimulus to independent thinking, and a training in judgment and discrimination which are not afforded by the formal textbook. In a word, an attempt has been made to combine in one volume the virtues of both the text and collateral readings, and as far as possible to eliminate their defects. To this end there has been selected a large number of comparatively short arguments, expressions of opinion, and points of view, supplemented by source materials, charts, tables, etc., which, while covering the principles of money and banking as adequately as the ordinary text, avoid the dogmatic tendencies inherent in the textbook method and retain the suggestiveness of collateral readings without their usual bulkiness and admixture of irrelevant material. These numerous selections have, it is believed, been welded into an organic whole, and unity of treatment has been secured, not only by careful arrangement, but by means of general introductory statements prefaced to each chapter or division. As a further aid to the orderly unfolding and development of the subject the volume is accompanied by a series of questions and problems based upon the readings and published separately under the title: "Exercises and Questions in Money and Banking."

During the four years of experimentation with the subject, a large proportion of the selections in this volume have, in mimeographed form, been repeatedly tested by classroom use. The exercises and questions have been developed with the readings and also tried out in class, with the result that after each trial there has been a very considerable revision, not only of the questions, but of the arrangement and organization of the readings as well. Moreover, these revisions have usually been made immediately following the class sessions from day to day, while the improvements suggested by the classroom discussions were fresh in mind.

The volume was originally intended to be used in a collateral capacity with a formal textbook; but as the number and variety of selections increased, the need for the text appeared to grow less and less, until in my own teaching I now prefer to use the volume independently of a textbook. Much of the material in Part II has also been used in mimeographed form by an instructor in another institution with a similar result; in the first semester it was used with a text, while in the second semester the text was discarded. This experience has led me to believe that the book may find its greatest use in an independent rather than a collateral capacity.

The main purpose of a preface, I take it, is to reveal the point of view of an author, or perhaps, more accurately speaking, to disclose his hobby. My own "view" just at present is that if it comes to a choice between a volume of this sort and a formal textbook as the basis of a course in Money and Banking the advantage lies with the book of selected materials. If the reader will bear with me I should like to present the reasons for my faith.

If the purpose of education is merely to supply students with predigested information, then the text is eminently satisfactory. A student may, however, commit to memory the principles laid down in the text, recite them in class, and write them down in examinations, and still be not very much the wiser. For the usual text does not in itself provoke thought and discussion to any great extent or lead to careful analysis on the part of the student: these desiderata come only through a challenge to the intelligence; and this challenge is best made by means of the presentation, not only of conclusions, but of the materials necessary to the formulation of conclusions. To reach a full understanding of the principles of economics it would seem to be necessary that the student should evolve, with the guidance and aid of the instructor, his own conclusions and principles.

This does not imply an inductive method in the sense that the beginning student is to digest the vast data and raw material bearing on a subject like Money and Banking and reach his conclusions after a tedious process of analysis and synthesis. On the contrary, the readings in this volume contain rather less of raw material and rather more of conclusions and matured opinions of authorities in the field, together with the conflicting views of various groups or classes in society. The method may be called inductive only in so far as the student's own conclusions are made to result from an analysis and

weighing of conflicting views, opinions, and arguments. This must, of course, be coupled with much deductive reasoning, and it is doubtless best to refer to it simply as the *discussion* method without raising the time-honored controversy over induction and deduction.

The presentation of varying points of view and of the philosophies of different social groups, together with conflicting opinions and conclusions of experts in the field, appears to me indispensable to a genuine appreciation of the subject. A very serious problem in the complex life of modern times lies in the specialized or group points of view that prevail with reference to so many of our economic questions and the inability to rise above the narrowing influence of one's special interest. The formal textbook seldom has a place for the presentation of such conflicting points of view; and where it does, they are given at second hand, usually in condensed summary form and almost wholly divorced from any manifestation of the spirit and feelings of the groups or times that held such views. For example, in a chapter on the silver movement in the United States the text-writer usually summarizes the causes of the agitation, shows why the "Crime of 1873" was not a real crime, enumerates the main provisions of the legislative acts passed by the silver people, shows the results of such legislation in the troublous times of the early nineties, and concludes that the restoration of bimetallism at the ratio of 16 to 1 would have been unfortunate—a dull, uninteresting account of a movement that roused the passions of millions of people for a generation. It is impossible to give the college student of today who viewed from his nursery window the torchlight processions of 1896 any real conception of the nature of the silver movement or any genuine appreciation of the important social and economic lessons it taught without reproducing something of the spirit of the times, without showing by means of their own burning language and arguments the motives, impulses, and passions that influenced the men of that generation.

Again, the assembling of material from a large number of authors gives to a volume a richness of content that a single writer cannot hope to furnish. No individual author, however matured in training and thought, can possibly write on the entire field of a subject like Money and Banking with the precision or authority that he can on particular topics to which he has given years of special study. For a book of readings, however, one may draw on the writings of a hundred students of the question. Often a comparatively short selection will

contain the one memorable contribution of an author to the advancement of the science. Incidentally, the collection of a large number of readings from a wide range of writers over a long period of time is an excellent introduction of the student to the literature of the subject. It may lead to further reading and study; but even if this goal is not attained, the student can hardly fail to realize that all of monetary wisdom and experience is not contained within the covers of a single book.

A collection of carefully edited readings and materials also makes possible the presentation of a much larger volume of data by virtue of the elimination of extraneous and repetitional matter. In order to supplement a text most teachers assign to the student a list of collateral readings bearing on the topic in hand and chosen with the idea of showing the student what writers other than the author of the text have to say on the subject, and, so far as is possible, presenting to him various points of view. The teacher is usually handicapped in this because in the ordinary library there is a limited supply of material of the documentary and pamphlet variety, while in many libraries the problem of a sufficient number of the formal standard treatises is a pressing one. But even where the library material is adequate, there is usually a great and needless duplication of effort on the part of the student. It may probably safely be said that as a rule something like one-half of such readings are practically duplications, and that another 25 per cent is extraneous matter, so far as the problem in hand is concerned. Someone has remarked in this connection that the system is really based on the labor theory of value. A more probable explanation, however, is that it is the product of necessity, being used only for want of something better. In any event there appears to be little justification for such duplication in view of the wealth of valuable material that cannot be covered under the most favorable conditions.

It is recognized that various objections may be raised in this connection. It may be urged, for instance, that a certain amount of repetitional reading is of value to the student. Now, while this is doubtless true for a *certain* amount, it hardly holds for *any* amount or for the *usual* amount. A frank talk with almost any serious-minded student brings out the statement that the student is prone to acquire the habit of reading one assignment and merely glancing at or wholly passing by the others, with the comforting reflection that it is the same "stuff" anyhow. While a good part, indeed, is usually

a virtual duplication, there are generally some paragraphs or sections which present new material of genuine importance. These the student all too frequently misses.

Again, it may be argued that "too carefully condensed and edited" readings result in the student's losing a valuable training in sifting chaff from the wheat. The analysis of a complete chapter or article either for the purpose of evaluating the whole or for picking out and making use of only such portions as bear on the topic in hand unquestionably gives a training that is of much importance. It seems to me, however, that the necessary training along this line may be gained without following this method exclusively, or even primarily. A considerable number of collateral readings of the type under consideration should certainly be used with a book of carefully edited readings and materials as well as with a formal textbook. Term papers or special reports may, of course, serve a similar purpose. Where the method is followed exclusively, however, the student frequently rebels or grows careless, with the result that he does not acquire the training intended.

The most serious obstacle to the independent use of a book of materials would seem to lie in a possible lack of unity in the volume. There is danger that the student may not see the relations between different chapters and divisions of the subject as well as when they are tied together by the thread of a formal treatise by a single author. In the present volume an effort has been made to overcome this shortcoming of the method by means of an introductory statement for each chapter which attempts to give a setting for the readings to come—to relate them to what has gone before and to indicate their trend and purpose. It is probable, however, that even with this aid the teacher will have more interpreting to do than with a formal text. But if the idea underlying the method is sound, he will find more than compensating advantages.

However, in all this pedagogical theorizing I recognize that I may well be in error. And especially do I appreciate that we are not all of the same pattern, and that what is a good method for one teacher may prove very bad for another. If, therefore, this volume does not commend itself for independent use, I hope there may be some who will find in it material that will prove useful in a collateral capacity.

In adapting the various selections to the needs of this volume I have endeavored to do no violence to the views of the various authors. In many cases, however, there have been substantial

omissions of material regarded as extraneous so far as the purpose to be served here is concerned, while in numerous others but a few paragraphs of an article or chapter are given, the purpose being merely to express a point of view or to present certain factual material. I must, of course, disclaim responsibility for the views and opinions expressed in the various selections, for many of them are presented merely for pedagogical purposes. There are numerous contradictory readings and many others that contain faulty analysis, chosen to serve merely as the basis for classroom discussion out of which principles may be developed. The unsigned readings are of two kinds: those taken from documents, reports, etc., the references being given in footnotes; and those written by myself. My own contributions have been written because of inability to find concise or satisfactory statements by others on topics regarded as essential to the unity or completeness of the treatise. It has seemed unnecessary to prepare a voluminous index to the volume in view of the complete table of contents.

The great number of selections makes individual acknowledgments out of the question here, and I can only appreciatively state that, with a single exception, I have received from publishers and authors the most courteous permission to use the materials desired. I am under heavy obligation to my former colleague, Professor Walton H. Hamilton, of Amherst College, for many suggestions growing out of almost daily discussions on method and organization. Professor James D. Magee, of the University of Cincinnati, has given a number of valuable suggestions; and Professor Walter W. Stewart, of Amherst College, who has read most of the manuscript in Part II, has given many helpful criticisms on this portion of the work. Finally, I am deeply indebted to the spirit of co-operation and team play in the department with which I am associated, the numerous conferences and informal discussions on the many problems involved in economic instruction having been of the very greatest assistance.

H. G. M.

University of Chicago
April 1, 1916

INTRODUCTION: SCOPE AND ORGANIZATION

Events in the field of money and banking in recent years have resulted in a substantial shifting of interest in the subject on the part of both the general public and professional economist. The two most conspicuous occurrences are of course the final disappearance of the bimetallic controversy two decades ago and the recent thoroughgoing revision of the national banking system. But in addition to these important changes, many new subjects have pressed forward for attention, among which may be mentioned the development of agricultural credit facilities and of the numerous types of co-operative loan associations and the enormous growth of investment banking. These important developments have seemed to me to necessitate a considerable reorganization in the subject-matter of a general course in the principles of Money and Banking, as well as numerous changes in the relative emphasis to be placed on the various aspects of the subject.

Writers of the school of Dunbar and Walker and their followers were naturally primarily concerned with the financial problems that were uppermost in their time. Accordingly, on the money side they stressed the bimetallic and government paper-money controversies, and on the banking side the operation and regulation of "commercial" banking as exemplified under the national banking system. These questions were all approached from the standpoint of an active present interest and were consequently treated in a more or less controversial manner; that is to say, it seemed of paramount importance at the time to promote sound thinking to the end that "sound money" might be secured. These monetary controversies of a former generation are, however, not relevant to present-day practical interests; they have been superseded by new issues. In the present volume, therefore, the readings on money have been developed and arranged so as to place these controversies in a historical setting in their relationship to the whole development of monetary science. While in the banking field most of the problems of an earlier generation remain for present-day discussion, the important developments that have lately occurred also necessitate, as already indicated, substantial modifications in the methods of analysis.

But irrespective of these changes, it has long seemed to me that the field of Money and Banking has been unduly narrowed by most writers on the subject. The well-known functions of money as a common denominator of value, medium of exchange, etc., are not the only, nor, from some points of view, the most important, functions of money. The usual "scientific" analysis of money fails to indicate the enormous rôle that it plays in the everyday world of affairs, and furnishes a wholly inadequate basis for an understanding of the monetary controversies of history. Similarly, the usual text on banking confines the discussion to such banks as create media of exchange in the form of notes and checks. The present volume attempts to treat both money and banking from a much broader standpoint and to bring the general subject into more vital relationship with actual business affairs.

Part I is divided into eight chapters. It begins with the pecuniary organization of society, covers the origin of money and the use of the precious metals, and the history of paper money and bimetallism with particular reference to American experience, and ends with a descriptive analysis of the present system in the United States. It is in connection with chap. i, "The Pecuniary Organization of Society," that the chief departure is made from the customary treatment of money. This chapter is divided into three sections, as follows: (A) "The Nature and Functions of Money"; (B) "Money, Capital, and Wealth," and (C) "The Rôle of Money in Industrial Society." The first of these treats in classical fashion of the economic functions performed by money in industrial society. The second portrays the confusion that has always existed in the popular mind with reference to money and capital and wealth, while the third is designed to show the relation of the price system to the organization of industrial society in general and the psychological effects of this pecuniary organization on the daily activities of man. The general purpose of this first chapter taken as a whole is to pave the way for an appreciation of the monetary history which follows.

There is an economic side to all the monetary controversies through which we have passed, but there is also another side—one which from a practical standpoint has been of much greater importance. Debasements of the coinage, the demand for the retention of bimetallism, and the numerous paper-money agitations of history have all been vitally connected with the prevalent desire for more money, in the belief that more money means more wealth. Without this

popular confusion on the subject of money and wealth, paper money and bimetallism would never have invaded the field of politics. While we might have had issues of paper money as a means of war finance, such issues would probably have been promptly retired, and, similarly, we should doubtless have abolished bimetallism at an earlier date in the absence of any popular concern over the quantity of money.[1] Under such circumstances, however, discussion of these subjects would have been primarily academic. Most text writers have in fact virtually assumed by their method of treatment that these controversies were mainly academic affairs. They are analyzed from the "scientific" point of view and the workings of economic laws are satisfactorily disclosed, but the tremendous rôle that money has played in society is not usually revealed. Viewed from a broader outlook, the history of money becomes one of the most interesting and human phases of social and economic progress.

A word should be said with reference to the treatment of paper money. It has been customary to discuss the history and principles of regulation of paper money without differentiating between government and bank paper. For instance, Jevons gives an indiscriminate list of the methods that have been employed in the regulation of paper money, some of them relating merely to government paper and others to bank paper. Any attempt to discuss the principles of bank paper money, however, appears to me futile until the student has studied the principles of banking. While, historically speaking, many of the government schemes involved the use of banks as agents, and while the motive for an issue by banks was often not different from that by a government direct, nevertheless the principles governing the regulation of issues by banks are very different from those applying to government issues. In this volume, therefore, bank paper money is not taken up until after the principles of banking have been discussed.

Treatises on banking are usually devoted solely and as a matter of course to what is commonly called "commercial" banking. Indeed, banking and "commercial" banking have been very generally regarded as synonymous terms. Bagehot remarks, for instance, that the Rothschilds are great capitalists but not bankers, while Dunbar in

[1] True, the public has frequently been concerned over falling or rising price-levels. Creditors have wished falling prices, or at least opposed a depreciation of the standard, while debtors have frequently desired a cheaper standard of deferred payments. But this question of changing price-levels has been very closely associated in the popular mind with the volume of the currency.

his little classic makes a similar distinction when he says: "In order to be a bank at the present day, an establishment must carry on the purchase of rights to demand money in the future, or securities, and it must also use in some form or other its own engagements for the payment of money *upon demand*." This conception of banking also finds support in the definition of a bank given in the internal-revenue act of 1866. According to this interpretation savings institutions holding time deposits are not engaged in banking; nor are the great investment houses which annually transfer from investors to borrowers funds amounting to many hundreds of millions of dollars to be regarded as banks. It is obvious, however, that the business world holds no such narrow conception of the banking business. The so-called "commercial" bank with its demand obligations is merely one type of banking institution; and to exclude all other kinds of financial operations is to narrow the field to an extent that gives but a one-sided view of the problems of banking as a whole.

The study of banking has usually been approached by way of the discussion of money as a medium of exchange; hence the customary treatment of money and banking together. It is this method of approach to the subject that is doubtless responsible for the attempt to confine banking within the narrow limits indicated above, for it is only the banks which issue notes and give demand deposits that create media of exchange. While the "economic" function of banks in furnishing society with media of exchange is of fundamental importance and should not be minimized or overlooked, it is at the same time quite as important to consider the "business" function of banks. From the point of view of the business world the chief purpose of banks is to make loans to borrowers. The business man regards his bank as a place to which he may go for assistance when in need—it is a sort of partner in his business venture. The fact that in giving him a loan the bank is creating an inexpensive medium of exchange for the transfer of commodities is from his standpoint of no moment. Similarly, the banker himself views his bank merely as a profit-making institution, the underlying economic function being but an after-reflection at best. Now, since it is the business men and bankers who use, manage, and direct institutions, the problems of banking cannot be fully apprehended unless we understand the business point of view. Since the business view of banking, with all its psychological aspects, is at bottom responsible for the whole problem of credit organization and control, it is important that the

analysis of banking should primarily proceed from the point of view of the actual business world. The underlying "economic" aspects are not overlooked or minimized by this method of approach; on the contrary, the reliability of notes and checks as media of exchange is only the better understood by virtue of such an analysis.

Again, in the customary treatment of banking, legal distinctions have frequently been confused with economic ones. A bank which creates demand obligations in exchange for future rights is said to be engaged in commercial operations; hence the designation of our national and state banks as "commercial banks." Now to classify a transaction as "commercial" should indicate, it would seem, the economic nature of the operation; and this, indeed, is the intent when one says, for instance, that national banks are commercial banks. They are supposed to serve the needs of commerce, that is, to facilitate the production and marketing of consumers' goods, and are not designed to promote investment or the creation of capital goods. Commercial transactions are in their very nature short-time operations, for consumers' goods move rapidly from one class of middlemen to another. Hence loans for commercial purposes may and should be short-time loans. Such quickly liquidating loans are obviously necessary for a bank which makes its obligations payable on demand. The theory underlying the commercial bank is unquestionably sound. But in practice a large percentage of the loans that give rise to demand deposits are in no direct way related to commercial enterprises. Overemphasis on the demand nature of the deposit has too frequently been accompanied by an underemphasis, if not a total ignoring, of the actual uses to which the funds borrowed on short time are devoted.

In fact, short-time borrowings from "commercial" banks are probably more often devoted to non-commercial than to commercial purposes. For instance, the funds from some short-time loans are used for consumptive purposes. In a far greater number of cases, however, they are devoted to speculation and long-time investment. The mere facts that these loans are of short duration, that they give rise to demand deposits, and that collateral security is usually required do not make them commercial loans, even if they are granted by so-called commercial banks. The very fact that collateral is required is evidence enough that they are not of a commercial nature. Genuine commercial loans require no collateral security, for the reason that such loans are self-liquidating.

Finally, a great quantity of funds, how great not even the banks themselves know, is annually loaned without collateral for investment uses—loaned by "commercial" banks and represented on the liability side of the account by demand deposits. The American practice of granting loans on single-name paper, provided the borrower's character is satisfactory and his financial statement shows a ratio of quick assets to current liabilities of more than two to one, contains no guaranty that the funds loaned will be used for commercial purposes.

Legally speaking, our national and state banks are commercial banks, since they make short-time loans and create demand obligations. Economically speaking, they are as much investment as commercial institutions. Practically speaking, the greatest problems of banking organization and control center around this confusion of investment and commercial operations, the results being manifested in every period of inflation and crisis. Happily the Federal Reserve Act has recognized the situation, and an attempt is now being made to eliminate the more flagrant abuses that have developed in the system.

Turning now from these general considerations to the actual organization of the materials on banking, Part II of the book is divided into the following chapters: "Introduction"; "The Nature and Functions of Credit"; "Instruments of Commercial Credit and the Law of Negotiability"; "Principles of 'Commercial' Banking"; "Relations between Banks"; "The Regulation of Banking"; "The Federal Reserve System"; "Co-operative Banking Agencies"; "Agricultural Credit"; "Investment Banking Institutions," and "The Interrelations of Financial Operations." The reasons for this general arrangement may be briefly indicated.

Since banking is but a particular type of credit operation, the discussion of the principles of banking is preceded by an analysis of credit in general. The central purpose in this analysis of credit is not only to show the nature and underlying basis of credit transactions, but even more—to make a sharp distinction between commercial and investment operations. Without a clear appreciation of the difference between a commercial and an investment use of funds the student cannot fully understand the principles of regulation of banking operations that have been developed or comprehend the problem of inflation and commercial crises; while this twofold classification of credit will also be found indispensable to an adequate discussion of savings banks, agricultural credit, and the various types of co-operative banking institutions.

In developing the principles of "commercial" banking and the problems that arise in connection therewith, a departure has been made from the prevalent method of treatment. Following an analysis of the operations of a bank as an individual business institution, we pass to a discussion of the relations that inevitably develop between banks. These interrelations are discussed under two headings: (A) "Within a Given City," and (B) "The System as a Whole." The materials under A, together with the questions based on them, are designed to indicate the inevitability of the interdependence that exists, and to show how competitive forces have led to the formation of clearing-houses and the various regulations developed by them, while under B are discussed, first, the general everyday business relations that exist between banks in different communities, and, secondly, their relations in times of tension and ease in the money market. The latter, again, is subdivided into (*a*) seasonal and (*b*) cyclical interrelations.

In the treatment of crises and panics no attempt is made to include the various theories that have been advanced to account for the periodicity of industrial enterprise; the economic cycle is treated, in the main, only in so far as it is affected by banking operations. In discussing the relation of banking to the economic cycle, however, attention is confined, not merely to the exciting period just preceding and during the panic, but the relation of banking to business at each stage in the cycle is indicated. It has been difficult, however, to get entirely satisfactory readings for this purpose, owing to the fact that the attention of writers has been so largely given to the crisis and panic stages only.

The discussion of the entire problem of banking in relation to the economic cycle is designed to bring out both the interdependence of banking relations and the obvious impossibility, because of the operation of independent competitive forces, of controlling the system through voluntary associations. While the banks as a whole recognize the mutuality of their interests and the necessity of concerted group action, nevertheless the persistence of individual desire to make large profits, on the one hand, or to save one's self first in case of a crisis, on the other, has rendered it impossible in our experience for banking institutions to organize and control the credit system in the interests of the larger welfare.

The readings under "The Regulation of Banking" are designed to bring out the general principles underlying government control,

and to show the regulations that have been developed under our national and state banking systems. The question of note issues is reserved for separate treatment because of its great historical importance and because of the special problems of control in connection with the issue function that remain in our day, even though the bank note has now assumed a position of less importance. In treating the problem of note issues general principles of regulation are put forward first and then the history of bank-note systems is presented in the light of these principles.

This general survey of our banking history makes it possible to discuss the Federal Reserve System against a background, not only of previous governmental control, but also of banking experience in the matter of voluntary regulation through clearing-house associations.

The last chapter of the volume is an attempt to show the many ways in which commercial and investment operations are interrelated in the financial world of today, and to indicate the problems that arise in connection with the control of the system of finance as a whole. One phase of this problem is the general confusion of commercial and investment operations by our "commercial" banks, already noted in this introduction; and another phase is the enormous rôle that is played by the investment banker, or financier, in modern business. The concentration movement in industry has been paralleled in the financial field; in fact, the two movements have proceeded hand in hand, mutually helpful and mutually necessary—joint products of common underlying causes. The power of the financier, however, is greater than that of the mere captain of industry; for by virtue of his control of the purse the financier assumes a dominant position, not only in the field of banking and finance, but in the whole realm of modern industry. The proper regulation and control of this great power in the interests of the public as a whole presents one of the most complex and delicate problems that will confront the statesman of the future.

The omission from this volume of certain topics that are customarily included in treatises on money and banking remains to be considered. An author always has to stop somewhere because of the limitations imposed by the publishers, if for no better reason. In a field so extensive as that of money and banking the problem of what may best be omitted presents many difficulties and must be decided in the light of numerous considerations. The first important omission to be noted here is the controversy over the relation of money and

prices. The reason for this omission so far as Part I is concerned is merely that price theories cannot be adequately treated until after the student has been carried through an analysis of credit and banking. The reason for omitting the subject altogether is merely that an adequate treatment would require far more space than could be given it in a volume of this sort. To analyze fully the price-making process in the complicated organization of modern credit society requires an entire course in itself, particularly if the controverted points are adequately discussed. The best exposition of the quantity theory in its modern form has required, even though written with unusual conciseness, a good-sized volume, while the literature of the opposition is almost as voluminous. As I see it, anything *less* than a careful analysis of the price-making process is a mere waste of time. Dogmatic assertions may be made as to the way in which changes in the volume of money and credit affect the price-level, but such assertions serve no real purpose; on the contrary, they merely dull the desire for further investigation.

It may be urged, however, that the price problem underlies all the monetary questions that we have had, and that without a correct theory of prices one cannot understand the problems of bimetallism, fiat money, etc. It is true enough that price is fundamentally connected with these problems, but it does not follow that the controverted points of price theory must be settled before one can understand bimetallism, etc. I know of no writer who would hold that a change in the volume of the standard *might* not affect prices. For instance, the foremost opponent of the quantity theory admits, as a matter of course, that a fall in the value of the standard results in, or is tantamount to, rising prices, and vice versa, and that a change from a metallic to a depreciated paper standard will mean higher (paper) prices. The controversy is primarily concerned with the method by which prices are affected, the one side holding that prices can change only as the value of the standard metal in which prices are measured rises or falls, and that such change may be independent of any offering of money in exchange for goods; the other holding that money and goods constitute the opposite sides of an equation of exchange, and that prices are a result of offers of money (and credit) directly against goods. Now all this discussion of the mechanism of the price-making process is immaterial in an analysis of bimetallism, debasements of the currency, and fiat money schemes. We may safely assume that a depreciated standard always means higher prices,

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PART I

MONEY

I

THE PECUNIARY ORGANIZATION OF SOCIETY

Introduction

Within the complicated structure of modern industrial society the institution of money is of supreme importance. Indeed, it is indispensable to the system of co-operative enterprise by means of which the wealth of the world is nowadays produced. Moreover, the more highly specialized the productive process becomes, the more important is the rôle assumed by money; though it should not be understood from this that money was unimportant before the industrial revolution and among the more primitive forms of organization. Practically speaking, from the very beginning of the division of labor and the exchange of commodities it has been of the greatest significance—a conditioning factor at every step in the evolution of industry.

In beginning the study of money, therefore, it is necessary to consider first the various services or functions that it performs in connection with the everyday process of procuring the means of livelihood. These are set forth in the selected readings below under Section A, "The Nature and Functions of Money." It is important to bear in mind when studying these selections that the writers have a special point of view. They are endeavoring to analyze the working of economic forces, as the physicist analyzes the working of physical forces; and from this standpoint it appears to them unnecessary to attach any particular importance to the popular views on the subject of money and the influence that these exert in directing the daily activities of mankind. For the purpose in hand they need merely look upon economic society as a great and complicated structure or mechanism and endeavor to ascertain and describe the part that money plays in such a system. Thus viewed, money is found to be an agent that is performing several functions that are quite as important as, though perhaps less obvious than, those performed by railways or manufacturing establishments.

Section B, "Money, Capital, and Wealth," portrays the confusion of mind that has always existed on the subject of money. The fact

that the values of all other commodities are stated in terms of money, and that it constitutes a general fund of purchasing power—a veritable key to things desired—has always resulted in a very general misunderstanding of its real importance and significance. By many people money has almost been regarded as an end in itself, and by still more it has been deemed at least a very superior form of wealth, a plentiful or scanty supply of which renders a nation rich or poor, powerful or impotent. The purpose of including in a scientific treatise numerous proverbs and literary quotations is to reveal the universality of these monetary notions. The results of these confused ideas on the subject are shown in following chapters. It need merely be said here that the exciting, even bitter, monetary controversies that have for centuries almost continuously commanded the attention of mankind center very largely around this popular misconception of the nature and functions of money.

The selections under Section C, "The Rôle of Money in Industrial Society," are written from an angle or point of view somewhat different from that taken in the selections under Section A. While not denying that money performs the functions first enumerated, these writers are not content to let the analysis stop at that point. Rather, they use these underlying functions of money, that is, as a medium of exchange, common denominator of values, etc., as a starting-point for a broader analysis of the dominant place that money occupies in directing the ordinary everyday business of the world. Since money constitutes a fund of general purchasing power, it serves as the basis of all business undertakings and, either directly or indirectly, as a measure of practically all the affairs of life. By it we express the relative value or worth of all commodities whatsoever; we use it as a convenient measure of services of every kind; indeed, it is frequently charged that we measure human worth and achievement in terms of dollars and cents. We reckon national, as well as individual, wealth in money, and even say that the wealth of the nation is a hundred billions of dollars, as though it actually consisted of so much coined metal or printed paper money.

This universal measuring of things in terms of dollars and cents has placed money in a position of unique importance in the industrial system. The desire to make money appears to be the mainspring of human effort and the basis of business organization. Price becomes the great controlling and directing force in economic affairs, the very center of the economic structure of society.

A. The Nature and Functions of Money

1. BARTER AND ITS INCONVENIENCE[1]

By JOSEPH HARRIS

In the earliest stages of culture commerce between individuals takes place exclusively by means of a direct exchange of commodities. A fish is traded for a fowl and a bow for a dozen arrows, in the same way that boys in a highly complex society often make a direct exchange of a top or a ball for a knife or a puzzle. It is in the inconvenience of this direct exchange of commodities, or barter, that we find the origin of the institution of money.

The first commerce amongst men was undoubtedly carried on by *barter*, or the exchange of one commodity for another. But as men and arts increased, a mere barter of commodities became inconvenient and insufficient in abundance of instances. For it must needs frequently happen that one man would want goods of another who had no present use for those goods which he had to give in exchange; and therefore to him these goods would be but of small value; and it might be a tedious and intricate course, before the goods of the first man could be so often bartered, till at length they became exchanged into that particular commodity which the second wanted. The same inconvenience would attend private bills, or promissory notes; for the *note* could not well be discharged till the man who gave it met with a customer that had goods which suited him. Added to this was the difficulty that contracts payable in goods were uncertain, for goods, even of the same kind, differ in value. One horse is worth more than another horse; wheat off one field is better than wheat off another; cows, horses, swine, etc., wheat, barley, oats, etc., might differ greatly in their value. A great disparity also would frequently happen between artificial things of the same sort, as one workman excelled another. So that in this state of barter there was no scale, or measure, by which the proportion of value which goods had to one another could be ascertained.

In a state of barter there can be but little trade and few artisans. For want of a ready exchange for their goods people would look little farther than to get food and some coarse raiment: The landed men would till only so much land as sufficed their own families and to procure them those few rude necessaries which the country afforded.

[1] Adapted from *An Essay on Money and Coins* (1757). Reprinted in *Select Tracts on Currency*, pp. 368–69.

Hence, without some kind of money the arts can make no progress; and without the arts a country cannot grow populous or flourish. Ignorance and idleness will naturally beget trespasses, incroachments, wars, and contentions, ever destructive to the growth of a people. Does not this account for what we daily see, even amongst nations reckoned polite? And how important is it that the rulers of the earth should be more liberally educated?

2. A DEFINITION OF MONEY

"Money is a medium of exchange." This is the common dictionary definition of the term, but, as we shall see, it is much too limited in scope and conveys but an imperfect idea of the nature and functions of money. Ask the ordinary man on the street, who knows no book definition, what money is, and he will tell you readily enough that money comprises coins of gold, silver, nickel, and copper; and paper money. He will usually not know the distinctions between greenbacks, silver or gold certificates, and bank notes; so far as he is concerned all these are merely "paper," as distinguished from "metallic" money. Such instruments as checks and drafts he would probably not consider money, though he would doubtless recognize that they perform a service very similar to that performed by money. He might add, if questioned further, that money is something specifically devoted to the work of making exchanges, and that it has been manufactured for that precise purpose. Finally, he would be sure to appreciate that the possession of money would give him purchasing power, regardless of whether he came by the money honestly or dishonestly, whether his own credit was good or bad. Bringing all this now into the semblance of a definition, we might say that *money includes those instruments of exchange which pass freely from hand to hand, without reference to the personal credit of the parties concerned.*

Such a definition, while quite satisfactory in the ordinary world of affairs, and, indeed, while perhaps as good a cut-and-dried definition as could be given for any purpose, will require a number of qualifications and explanations for the purpose of economic analysis. We shall need to know the differences between *real* and *representative* money, and between *standard* and *subsidiary* and *token* money. We shall need to know, further, the functions which money serves other than as a means of exchanging commodities.

3. A COMMON DENOMINATOR OF VALUE[1]

It is necessary to ask, first, Why does a country need a common denominator or standard of value? Obviously, every article possessing value can be compared with other articles having value only by reference to some given standard which itself possesses value. The value of a commodity, it should be said, is the quantity of another commodity, or other commodities, for which it will exchange. To be obliged to go through an arduous comparison of one article with every other article created would be an insuperable difficulty. If a tailor had only coats, and wanted to buy bread or a horse, it would be very troublesome to ascertain how much bread he ought to obtain for a coat, or how many coats he should give for a horse. The calculation must be recommenced on different data every time he barters his coat for a different kind of article, and there could be no current price or regular quotations of value. As it is much easier to compare different lengths by expressing them in a common language of feet and inches, so it is much easier to compare values by means of a common language of dollars and cents. In short, a common denominator is as necessary in comparing the value of commodities as is a common language among many persons in any one city to enable them readily to compare ideas. Before property can be conveniently traded in, or exchanged, its value must be expressed in terms of a common denominator of value.

There is, however, no absolute measure of value, as there is of length. A common denominator of value and a unit of length, like a yardstick, are wholly different in kind. A yardstick is an unvarying measure of length; but a metal, or any commodity, is not and never can be an unvarying measure of the relations of that metal or commodity to other commodities which are constantly changing relatively to each other. The very commodity chosen as a standard can be changed in value by causes affecting itself; and the other commodities (which are compared with the standard) can be changed by causes affecting them; so that the ratio of exchange with the chosen standard may be modified by causes affecting either or both terms of the ratio. It is inconceivable that any one article should alter exactly, and in a compensating direction, with innumerable other commodities.

[1] Adapted from *Report of the Monetary Commission of the Indianapolis Convention* (1898), pp. 77–80.

A wide difference is thus observable between the function of money as a common denominator of value and its function as a medium of exchange. A common denominator, whether it is a perfect one or not, is used to *measure* value; a medium of exchange is used to *transfer* value. The two processes are entirely distinct. The difference will be instantly seen by the analogy with weight: the machinery for weighing coal, the scales, does one duty; while that for transporting coal, the horses and wagon, does another duty. If, instead of coal, we think of all goods, and, instead of weight, we think of value, then money is used both as a measure of the value and also as a means of exchange—although these two functions are quite distinct. In the case of value, an article, after being expressed in terms of a standard, is ready to be exchanged.

But the one important idea to be kept firm hold of in all discussions of money is that when it comes to exchanging goods the metal chosen as the common denominator is not necessarily used as the medium of exchange. If gold, for instance, is chosen as the common denominator by a country, it does not at all follow that gold is used in all the transactions requiring a medium of exchange. Various forms of subsidiary currency may be and indeed usually are used instead of the standard money. The first historical fact which confronts us is that in a society which has passed beyond the stage of barter, but which has not yet developed the habits of a modern commercial nation, money is usually passed from hand to hand in buying and selling. The commodity selected as a common denominator is then, also, practically the sole medium of exchange. But as soon as commerce develops, expedients arise for saving the expense and risk of using actual money.

4. THE FUNCTION OF A MEDIUM OF EXCHANGE[1]

BY FRED M. TAYLOR

An illustration which shows the precise nature of this function very clearly is furnished by the case of the farmer who comes to town with a load of wood, sells it for five dollars, and then spends the money buying groceries, dry goods, etc. What, now, are the characteristic features of this method of procedure? First, it is plain that the single transaction of barter has given place to two transactions, a sale of one commodity and a purchase of another. This, however, does not quite exhaust the matter.

[1] Adapted from *Some Chapters on Money*, pp. 14–16. Published by the University of Michigan, 1906.

Between the two transactions thus substituted for the one transaction there is necessarily an intermediate stage, an interval of waiting, long or short, which gives the farmer who has sold his wood for money a chance to get himself into relation with the men from whom he is going to buy groceries and dry goods. Further, if money exchange is going to be a really great improvement over barter, this interval of waiting must be capable of indefinite extension; for the farmer will not necessarily wish to spend the whole proceeds of his wood for groceries and dry goods or anything else *on the same day* that he sells that wood. It may easily be for his interest to separate sale and purchase by weeks or even months. For example, he will be selling wood every day during the good sleighing of midwinter; but he will want to do the buying part of the operation all along till summer crops begin to bring in something. It is thus evident that money exchange really breaks up barter into *three* parts; viz., (1) selling goods for money, (2) keeping the money till other goods are needed, and (3) using the money to buy other goods. It is further evident that in these three stages, as looked at from the standpoint of the man who starts out with goods to sell, money plays three different parts. In the first, its rôle is that of a thing which can *be obtained* with any goods whatsoever. In the *third*, its part is that of a thing which can *obtain* any goods whatsoever. In the second, its business is to *keep*—store—this power to obtain other goods.

But just here we need to be a little careful. In trying to realize clearly that acting as a medium of exchange involves three stages, we must not fall into the mistake of supposing that money is to be thought of as a medium of exchange only when, and in so far as, it carries an exchange transaction completely through its three stages. Doubtless money has not *entirely* performed its part as a medium of exchange till the farmer who has sold his wood for money has *also* used the money to buy shoes or something else. Still, it is performing that part in each stage of the operation. It is serving as a medium of exchange, provided it is doing for anybody any one of the three things which are essential to a complete exchange operation. That is, money is serving as a medium of exchange either (1) when a man is *getting* it in exchange for goods, or (2) when a man is *keeping* it on hand with the intention of using it at the proper time in the purchase of goods, or (3) when he is actually *using* it to purchase goods. Or, to change the form of expression, money is a medium of exchange so long as it is *being sought after, or being kept, or being used*

solely to buy goods, either for its owner or for someone to whom he transfers it as a gift or as a means of settling an obligation. When no longer employed in one of these ways it has ceased to be a medium of exchange.

5. A STORE OF VALUE[1]

BY FRED M. TAYLOR

This function of money has its origin in two facts already touched upon in speaking of the medium of exchange; viz.: (1) that a necessary stage in the effecting of exchanges through money is the interval of waiting between the sale of goods for money and the use of the money to buy other goods, and (2) that this stage can usually be indefinitely prolonged at the will of the owner of the money. As a result of these facts our freedom of choice as to the time when we shall utilize our wealth is indefinitely increased. The products of today are sold today; but through the magic of money they satisfy the wants of next week or next month or next year. It sometimes happens that people sell things which will keep indefinitely and which they really want and will later buy back with the very money received from their sale, simply because they consider the money a safer form in which to keep their wealth during the interval. This is especially likely to happen in badly governed countries where property is insecure. But it also happens in well-governed countries if for any special cause temporary insecurity prevails. On the eve of a great war bonds and stocks are likely to be treated in this way. So in the midst of a disastrous war even a civilized nation may be in such desperate straits that people anticipate a confiscation of certain kinds of property and hasten to turn them into money as being more easily concealed. In such extreme cases as these it certainly seems legitimate to say that money acts as a storer of value. But even in the more ordinary cases, so long as the special object in the mind of the seller of goods is to get his wealth into a form which will *keep*, we may without serious impropriety describe the operation as a storing of value. Only we must not forget that money's storing value is not a work independent of its serving as a medium of exchange, but is merely the artificial prolonging or emphasizing of one of the three necessary stages in its mediating of exchanges.

[1] Adapted from *Some Chapters on Money*, pp. 20–22. Published by the University of Michigan, 1906.

6. THE RELATION OF MONEY AND PRICES

When we say that money serves as a common denominator or standard of values we mean that it is the one commodity with which or by which all others are compared. Now in comparing any given commodity with money it is of course necessary to take a certain definite quantity of such commodity and also a definite quantity of the monetary material. The quantity of money that has been chosen in the United States as the standard, or dollar, is 25.8 grains of metal, of which 23.22 grains is gold and the remainder copper alloy. To express the value of another commodity in terms of money, therefore, we always compare a certain quantity of it, as a pound, bushel, or yard, with 25.8 grains of standard gold. If a bushel exchanges for a dollar, we say its *price* is one dollar; while if it requires two dollars, or one-tenth of a dollar only, to make an even exchange, then we say the price is two dollars or ten cents.

While this universal statement of values in terms of price is of inestimable advantage, it nevertheless gives rise to problems of its own. The article chosen as a standard is itself a commodity and subject in consequence to fluctuations in value when compared with other commodities. The forces that may influence prices in general are numerous and the question of price levels is one of the most complex in the entire field of economics. But without going into any of the controverted questions we may nevertheless elucidate here a fundamental principle. If for any cause whatever the value of the standard should fall, it is obvious that the prices of all other commodities, assuming no change in them, would rise. And, conversely, if the value of gold should rise, the prices of other commodities would fall. Indeed, it is often stated that a fall in the value of gold *is* a rise in prices, since it is by means of rising prices that the fall in value manifests itself. At any rate this general price relation or equation is fundamental to monetary discussions.

In connection with time contracts there is always the possibility that the money which constitutes the legal means of payment may change in value, and at the expiration of the contract stand for a greater or less purchasing power in terms of other commodities. Ordinarily not of great importance, there have been occasions when a fluctuating standard has virtually prohibited long-time borrowing. Again changing price levels due to an unstable standard has serious consequences through the failure of wages and salaries to change with equal rapidity. The present high cost of living is generally regarded

as largely the result of a depreciating standard. It is for these reasons that stability of value is always emphasized as of the greatest importance in connection with the commodity chosen as money.

7. THE STANDARD FOR DEFERRED PAYMENTS[1]

We may now consider the third function of money, namely, to serve as a standard of deferred payments. Whenever a contract is made covering a period of time, within which serious changes in the economic world may take place, then difficulties may arise as to what is a just standard of payments. Various articles might serve equally well as a standard for exchanges performed on the spot, but it is not so when any one article is chosen as a standard for deferred payments. Without much regard to theory, the world has in fact used the same standard for transactions whether settled on the spot or whether extending over a period of time.

In order to work with perfection as a standard for deferred payments, the article chosen as that standard should place both debtors and creditors in exactly the same absolute, and the same relative, position to each other at the end of a contract that they occupied at its beginning. This implies that the chosen article should maintain the same exchange value in relation to goods, rents, and the wages of labor at the end as at the beginning of the contract, and it implies that the borrower and lender should preserve the same relative position as regards their fellow producers and consumers at the later as at the earlier point of time, and that they have not changed this relation, one at the loss of the other. This makes demands which any article that can be suggested as a standard obviously cannot satisfy. And yet it is a practical necessity of society that some one article should in fact be selected as the standard. The business world has thus been forced to find some commodity which—while admittedly never capable of perfection—provides more nearly than anything else all the essentials of a desirable standard.

8. DIFFERENTIATION OF MONETARY FUNCTIONS[2]

BY W. STANLEY JEVONS

It is in the highest degree important that the reader should discriminate carefully and constantly between the four functions which money fulfils, at least in modern societies. We are so accustomed to

[1] Adapted from *Report of the Monetary Commission of the Indianapolis Convention* (1898), pp. 92–93.

[2] Adapted from *Money and the Mechanism of Exchange*, 1875, pp. 16–17. (D. Appleton & Co.)

use the one same substance in all the four different ways that they tend to become confused together in thought. We come to regard as almost necessary that union of functions which is, at the most, a matter of convenience, and may not always be desirable. We might certainly employ one substance as a medium of exchange, a second as a measure of value, a third as a standard of deferred payment, and a fourth as a store of value. In buying and selling we might transfer portions of gold; in expressing and calculating prices we might speak in terms of silver; when we wanted to make long leases we might define the rent in terms of wheat, and when we wished to carry our riches away we might condense it into the form of precious stones. This use of different commodities for each of the functions of money has in fact been partially carried out. In Queen Elizabeth's reign silver was the common measure of value; gold was employed in large payments in quantities depending upon its current value in silver, while corn was required by the Act 18th Elizabeth, c. VI. (1576), to be the standard of value in drawing the leases of certain college lands.

There is evident convenience in selecting, if possible, one single substance which can serve all the functions of money. It will save trouble if we can pay in the same money in which the prices of things are calculated. As few people have the time or patience to investigate closely the history of prices, they will probably assume that the money in which they make all minor and temporary bargains is also the best standard in which to register debts and contracts extending over many years. A great mass of payments too are invariably fixed by law, such as tolls, fees, and tariffs or charges; many other payments are fixed by custom. Accordingly, even if the medium of exchange varied considerably in value, people would go on making their payments in terms of it as if there had been no variation, some gaining at the expense of others.

B. Money, Capital, and Wealth

(1) THE UNIVERSAL LOVE OF MONEY

9. PROVERBS ON MONEY[1]

A man without money is a bow without an arrow.
A man without money is a ship without sails.

A thousand pounds and a bottle of hay
Are just the same at doomsday.

[1] Compiled by Walton H. Hamilton. Designed to show the general confusion of money and wealth down through the ages.

A man without money is like a bird without wings; if he soars he falls to the ground.

Money does not get hanged.

Money is the best bait to fish for men with.

Money is the soul of business.

Money is a universal language, speaking any tongue.

If you have money, take a seat;
If you have none, take to your feet.

Mention money, and the world is silent.

Money answereth all things.

Money begets money.

He that hoardeth up money takes pains for other men.

He who hath both money and bread
May choose with whom his daughter to wed.

If a man's money be white, no matter if his face be black.

If you have money, you are wise; if not, you are a fool.

If you make money your god, 'twill plague you like the devil.

Give me money, not advice.

God makes and apparel shapes, but it is money that finishes the man.

God send you more wit and me more money.

Hate, religion, ambition, all have their hypocrisies, but money applies the thumbscrew to them all.

But help me to money and I'll help myself to friends.

He that hath no money in his purse should have fair words on his lips.

Good manners and plenty of money will make my son a gentleman.

Money makes a man for ilka that.

One handful of money is stronger than two handfuls of truth.

Put not your trust in money, but your money in trust.

When money speaks, truth keeps silence.

Money is a sword that can cut even the Gordian knot.

10. MONEY AND HUMAN MOTIVES[1]

Nothing in use by man, for power of ill,
Can equal money. This lays cities low,
This drives men forth from quiet dwelling-place,
This warps and changes minds of worthiest stamp
To turn to deeds of baseness.

—SOPHOCLES

[1] Compiled by Walton H. Hamilton.

Money's the life and soul of mortal man.
Who has it not, nor has acquired it,
Is but a dead man, walking 'mongst the quick.
—TIMOCLES

How greatly everywhere
Prevails the power of the two oboli.
—ARISTOPHANES

Cursed be he above all others
Who's enslaved by love of money.
Money takes the place of brothers,
Money takes the place of parents,
Money brings us war and slaughter.
—ANACREON

What power has law where only money rules?—PETRONIUS ARBITER.

For the love of money is the root of all evil.—PAUL OF TARSUS.

'Tis money makes the man; and he who 's none
Is counted neither good nor honorable.
—DIOGENES LAERTIUS

Money alone sets all the world in motion.—PUBLIUS SYRUS.

I . . . . found him whom I left a foe, my friend.
What will not money do?
—PLAUTUS

Money, the sinews of war.—CICERO.

There is no sanctuary so holy that money cannot profane it, no fortress so strong that money cannot take it by storm.—CICERO.

Men dig the earth for gold, seed of unnumbered ills.—OVID.

Make money, money, man;
Well, if so be,—if not, which way you can.
—HORACE

All things, human and divine, renown,
Honor, and worth, at money's shrine bow down.
—HORACE

None questions whence it comes, but come it must.—JUVENAL.

"The beautiful eyes of my money-box!"
He speaks of it as a lover of his mistress.
—MOLIÈRE

For I did dream of money-bags to-night.—SHAKESPEARE.

If money go before, all ways do lie open.—SHAKESPEARE.

Whilst that for which all virtue now is sold,
And almost every vice—almighty gold.
—BEN JONSON

Money brings honor, friends, conquest, and realms.—MILTON.

Get money, get money still,
And then let virtue follow if she will.
—POPE

But the jingling of the guinea helps the hurt that honor feels.—TENNYSON.

11. MONEY IS POWER[1]

BY EDWARD LANE

The measure under consideration affects the people I have the honor to represent more than any question that has come before this Congress. It is a measure cognate with the tariff. By this and kindred acts the money is passed from the Government to the people. Money is as old as civilization and its existence is necessary to society. The use of money is all the advantage there is in having it, yet money makes up in a measure all other wants in man. The greatest want of the commercial and business life of this country today is money. It is needed alike by the merchants, farmers, and laborers. The demand is for more money, and of course it should be of the best.

Money is power, and so acknowledged the world over. It is the force that underlies our civilization and pushes it to the greatest possible activity. Money impels the merchant to his most venturesome daring, the mechanic to exploiting his most inventive genius, the farmer to endure the summer's heat and the winter's cold, and the toiler in every direction to the accomplishment of the most earnest effort for success. The power of money and the hope of its attainment is the incentive to nearly all humanity's most earnest and most honorable exertion.

What, then, is money and what are its uses? It may be stated in general that money is crystallized labor, labor accumulated and massed, and when so accumulated and massed it has the power of

[1] Adapted from a speech in the House of Representatives, June 6, 1890, *Congressional Record*, XXI, Appendix A, p. 347.

labor, or, in other words, money is a medium of exchange created by law by which the value of all commodities produced by labor is represented and exchanged. Labor creates wealth and money represents labor, but the value of money must be fixed by law.

I will repeat that nearly all wealth is produced by labor, and the laborers would possess it if something did not exist to prevent this natural result. In this country, where the reward of labor is greater than in any other, some cause is operating with continued and growing effect to separate production from the producer. It is admitted on every hand that we are the most powerful country on earth; no ancient or modern empire can compare with our Republic in resources or extent. It is occupied by 65,000,000 of bright, brave, free, intelligent, industrious, and energetic people. It is filled with the natural resources of every zone: gold, and silver, and copper, and lead, and iron from the mountains; cattle and sheep from the plains; cotton from the South; corn and wheat from the West.

Our farmers ought to be the most happy and prosperous in the world, as they under the circumstances ought to be the wealthiest. But do the people share in this bounty? Are the laborers of the land satisfied with existing conditions? Are they free from apprehension of the future? Does the farmer find his brow unfurrowed by the plow of care? Are the highways free from tramps and the poor-houses and prisons tenantless? Is the tax-collector driven from the door and want from the home? Alas! no; and what is the reason? Mr. Speaker, the wrong is evident, and as a plain business man I wish to trace what I believe to be the cause to its proper source.

The figures show that there should be $21.75 per capita in circulation, and this may be true, averaging the whole country over, but as a matter of fact there is not $10 per capita in circulation in the West, and I think that amount much too small.

Why is this? Has anyone ever observed any calamity resulting from the circulation of too much money? Is there any locality or era where there was too great activity among the producing classes? I never knew or read of any country where there were too many houses in process of erection, or too plentiful raiment, or too abundant food, nor where transportation of products was too cheap and rapid. Does anyone recognize high prices of labor as leading to disastrous results anywhere? I presume no one would question the fact that if we had more money now in circulation among the people we would have much better times. Who, then, is to blame for the scarcity of

money? Clearly Congress; and, if so, the Republican party, for the Democratic party has not had full charge of the Government for many years.

The market prices of land, of labor, and of commodities are regulated by the amount of money in circulation. When money is plentiful prices advance, and when money is scarce prices recede. The leading economic thinkers of the nineteenth century agree that a decrease in the quantity will always cause the wages of labor and the prices of land and all commodities to sink in proportion.

The law which experience has graven upon the tablets of time is that values must be measured by money and money must be measured by its own quantity in relation to values.

John Stuart Mill, the greatest economic thinker of Europe, says: "If the whole money in circulation was doubled, the prices would double. If it was only increased one-fourth, prices would rise one-fourth."

One of the greatest American writers on this subject has said: "The truth is that the most enormous power ever known to man or that ever can be his lies in money, in the increase or decrease of its quantity." Mr. Speaker, I could furnish a hundred or more of such testimonials if I had the time; but it is wholly unnecessary, as every man who has been in business for the last twenty-five years is a witness for himself; and if he will divest himself of prejudice he will admit the truth of all I say.

(2) MONEY AND THE REGULATION OF TRADE

12. POVERTY AND THE EXPORT OF PRECIOUS METALS[1]

BY MARTIN LUTHER

Foreign merchandise which brings from Calicut and India, and the like places, wares such as precious silks, and jewels, and spices, which serve only love of show and no useful purpose, and drain the land and people of their money, should not be permitted. But I do not propose now to speak of these things; for I think that these things will needs be dropped of themselves finally when our money is all gone, as well as the display and gluttony; indeed, no writing or teaching else will do any good until need and poverty force us.

[1] Adapted from an essay *On Trade and Usury* (1524). Printed in *The Open Court*, XI, pp, 17–18. The Open Court Publishing Company.

God has brought us Germans to that pitch that we must needs scatter our gold and silver into foreign lands, and make all the world rich and ourselves remain beggars. England would indeed have less gold if Germany left her her cloth; and the king of Portugal also would have less, if we left him his spices. Reckon thou how much money is taken out of German land without need or cause in one Frankfort fair, then wilt thou wonder how it comes that there is a penny left in Germany. Frankfort is the silver-and-gold hole through which everything that sprouts and grows among us, or is coined and stamped, runs out of German lands. If this hole were stopped, we perchance would not hear the complaint how on all hands there is nought but debts and no money, and all provinces and cities are burdened and exhausted by interest-paying.

13. THE ADVANTAGE OF A FAVORABLE TRADE BALANCE[1]

BY JOSIAH TUCKER

In foreign trade, if one nation pays the other a quantity of gold or silver over and above its property of other kinds, this is called a balance against that nation in favour of the other. And the science of gainful commerce principally consists in the bringing this single point to bear. Now there can be but one general method for putting it in practice; and that is, since gold and silver are become the common measure for computing the value and regulating the price of the commodities or manufactures of both countries, to export larger quantities of our own, and import less of theirs, so that what is wanting in the value of their merchandise, compared with ours, may be paid in gold and silver. The consequence of which will be that these metals will be continually increasing with us, as far as relates to that particular trade and nation, and decreasing with them. And in what proportion soever their money comes into our country, in that proportion it may truly be affirmed that our sailors, freighters, merchants, tradesmen, manufacturers, tenants, landlords, duties, taxes, excises, &c. are paid at their expense.

Or to put the matter in another light: when two countries are exchanging their produce or manufactures with each other, that nation which has the greatest number employed in this reciprocal trade, is

[1] Adapted from *A Brief Essay on Trade.* (London, 1753.) Reprinted in *Select Tracts on Commerce.*

said to receive a balance from the other; because the price of the overplus labour must be paid in gold and silver. For example; if there are only ten thousand persons employed in England in making goods or raising some kind of produce for the market of France, and forty thousand in France for the market of England,—then we must pay these additional 30,000 Frenchmen in gold and silver; that is, be at the charge of maintaining them.

14. MERCANTILISM IN 1870[1]

BY BONAMY PRICE

Let us take up the newspapers of today. Read the city articles of every one of them. Look at the cast of thought, at the style of literature, at the principles proceeded upon, at the whole spirit of the language. What is thought most deserving of record? The sums of gold taken to the Bank of England, or taken away from it; the amount of bullion; the vessels laden with gold on their passage to England from California and Australia; the state of the exchanges. The beloved phrase of the mercantile theory, "favorable exchanges," is dwelt upon with satisfaction; unfavorable exchanges, and the departure of gold to foreign countries, are bemoaned with anxiety as a loss; prognostications are made of a languishing or flourishing trade, according to the influx or reflux of bullion; and weekly returns are proclaimed of ingots buried out of sight in the cellars of the Bank. The doctrine that gold is wealth—the doctrine which Mr. Mill paints as an absurdity so palpable that the present age regards it as incredible, as a crude fancy of childhood—breathes in every line of the city articles of all our daily newspapers. . . . . What is this, I ask, but the mercantile theory, pure and fresh, as you heard Mr. Mill describe it? What is it but the resurrection of the Practical Man—the reassertion of himself, of his experience, his appeal to outward form, to what may be touched and handled? The world fondly imagined that he was vanquished and gone; that Adam Smith had finally disposed of him; that boys and students had learned to pity him, and to pride themselves on having been born after the great Scotch genius; never was there a greater mistake. It takes many Adam Smiths in Political Economy to kill off forever genuine mercantile superstitions. The great authority, the man of millions, who is supposed to understand the theory of business precisely because he

[1] Quoted from Henry V. Poor, *Money, Its Laws and History*, p. 406.

has made millions, revives in every age. The mercantile theory may be consigned by philosophers to the limbo of nursery toys; but it lives on all the same, is master of the mind of the city, is supreme over city articles, and regulates the barometer of commercial weather, and, above all, is held to know the great secret of trade, and to be able to show men the way to get rich.

15. THE PRACTICAL BUSINESS VIEW OF WEALTH[1]

By HENRY V. POOR

Writings such as those of Professor Price show the incoherent buffoonery taught in the name of Political Economy in one of the first universities in Christendom. Where are her purists, that they tolerate within her sacred precincts a fustian rhetoric to be matched only by that of Pistol?

A reader of the Economists cannot fail to be struck with the hostility, not to say hatred, which all of them display toward merchants. Adam Smith, when he called them "sneaking underlings," struck the keynote for all his followers. What is the reason of this hatred, with a sharper tooth even than that of the *odium theologicum*?—the practice of treating gold as wealth, and the highest form of wealth, in the very face of the teachings of the Economists that it is not wealth; or that it is the lowest form of wealth. It was a reflection not to be tolerated. Smith did his best to sustain his theory by sneers and flings at those who grew rich by its violation. He declared them to be a mean and selfish race, the abettors of the worst forms of monopoly, and the disturbers of the peace of the world. Price, in his grotesque way, attempts to paint them in still blacker colors. He admits that if the merchant, if the universal instinct of the race, is to be trusted, the teachings of Adam Smith, so far as they relate to money, are shams; that one of the two must go to the wall. The only refuge of the Economists is in crying that the science has been overborne by the selfishness of men of affairs. They cannot deny that these grow rich by pursuing methods precisely the opposite to those which they lay down. The man of millions vaunts his methods; and, in reply to criticism upon them, shakes his moneybags. The Economists fiercely reply that truth is sacrificed to mammon; but if it be the office of Political Economy to teach the method of wealth, why has

[1] Adapted from *Money, Its Laws and History*, pp. 406–8. H. V. and H. W. Poor (1877).

not the man of millions the true method; and what need of going beyond his rules? As for the selfishness of the race, we fear that Political Economists have no prescription for its cure.

16. MERCANTILISM TODAY[1]

By JOHN CALLAN O'LAUGHLIN

The great war has not crippled American commerce as was expected when it began last August. Statistics show that during the expiring year the United States has had the largest balance of trade in its favor that it ever has had. The balance will be about $1,000,000,000. Prior to the present fiscal year the largest trade balance enjoyed by the United States was in 1908, when it amounted to $665,000,000. While there has naturally been more falling off in imports on account of the war, the great gain has come from the tremendous growth of exports. Their value will be almost $300,000,000 over the figures of last year, and practically $200,000,000 over those of the year previous, the prize year in exports. This enormous balance of trade in our favor is very gratifying to the American people and the American government.

17. THE PRESENT GRATIFYING SITUATION[2]

The treasury statement for May 1 discloses a gratifying condition of our circulating medium and one which promises great strength to meet any possible emergency of the near future. During April the national bank notes in the hands of the public, including the emergency notes, decreased from $842,615,970 to $814,832,339, while the federal reserve notes increased from $40,736,130 to $53,749,860. On the first of April the gold coin in circulation—which includes gold held by the banks as reserve and other gold that has been placed in the hands of the public by the treasury—amounted to $614,632,850. On the first of May this amount had fallen off to $598,931,706, but of gold certificates, representing the metal, there was $951,205,229 April 1 and $987,447,729 May 1. The aggregate of these totals for each of the months represents the actual amount of gold in circulation and shows an increase between April 1 and May 1 of $20,541,356. This gain is largely due to the importations. The aggregate of these two items, gold and certificates representing gold, May 1, was $1,586,-

[1] Adapted from the *Chicago Herald*, June 28, 1915.

[2] Adapted from an editorial in the *Chicago Economist*, May 15, 1915.

379,435, standing for the aggregate of gold actually used as money by the public. The total amount of gold used as money, including bullion in the treasury of the United States at that time, was over $1,889,000,000. This amount is far in excess of that held by any other country for the purpose, and is a tremendously strong basis for future financial operations. How far we have gone in the right direction since the resumption of specie payments January 1, 1879, is shown by a comparison of this billion and a half of gold with the $117,000,000 we had then.

18. PATRONIZE HOME INDUSTRY[1]

By WALTON H. HAMILTON

"A dollar spent in Auburn gives you another chance at it; but, if it is spent out of town, it's 'Good-bye Mary.'"

"Down with the parcels post. No more diabolical device was ever perfected by the big cities for stripping the small towns and country districts of all their surplus cash. Yet the rich mail-order houses wax fat with the dollars that are the property of local merchants."

"If I were mayor, and had my way, I would place a fine of one hundred dollars on every man who ordered goods from a mail-order house."

"The individual can get rich only by selling more than he buys. Likewise a community can prosper only by selling to other communities more than it buys from them."

"The annual influx of students and other outsiders into our fruit belt to engage in fruit-picking and packing is an abuse that should be stopped at once. These people consume very little, saving their money to take back to Ann Arbor, Madison, Champaign, and other places from which they come. Thus, while making large sums off us, they give little or nothing in support of our industries."

"The county commissioners should be promptly impeached and removed from office for their action last Monday. We understand that the contract for the building of the new courthouse was let to the Knoxville firm only because their bid was $1,800 under that of our fellow-citizen, James R. Robertson. Robertson, as we are all aware, is an expert at this line of work, and was well equipped to do a

[1] Adapted from *Current Economic Problems*, pp. 284–87. (The University of Chicago Press, 1915.)

handsome job. The only excuse which the commissioners give is the $1,800. But, against this must be set down the $32,000 which will be paid to the Knoxville gang. Think of it! Sending $32,000 out of town to save a paltry $1,800."

"'Now look here, Doc,' said the dollar to the dentist, 'if you'll only let me stay in this town, and won't send me to Roars, Sawbuck & Co.'s in Chicago for that shaving-mug, I'll circulate around and do you lots of good. You buy a big beefsteak with me, and the dry goods merchant will pay his doctor's bill with me, and the doctor will give me to the farmer for oats with which to feed his horse, and the farmer will buy fresh beef from the butcher, and the butcher will come around to you to get his tooth mended. In the long run you see I will be more useful to you here at home than if you send me away forever.'"

"The recent cold spell, which caused a large number of water pipes to burst, has been a bonanza for business. Few things in the last year have caused so many people to dig down in their jeans and cough up the cartwheels that spell prosperity."

(3) THE CONFUSION INVOLVED

19. WHENCE THE COMPLAINT OF THE WANT OF MONEY?[1]

By JOSEPH HARRIS

The want of money is a common cry. All the scramble is for money; few think they have enough, and many complain. This probably will ever be the case, nor would setting the mint to work cure the evil; and perhaps there is nowhere more want than where there is most money. The beggar hath no property, nothing to exchange for money; and if he will not work, none would come to his share, if the common stock was ever so much increased; a greater plenty of money would be so far from being advantageous to him that he would run the greater risk of starving, as bread and provisions of all sorts would then be so much the dearer. The farmer complains, and thinks that if there was more money in the country his corn and cattle would fetch a better price: They would fetch more money, but not more of anything else that he wants; and he would not be at all bettered by this higher price, unless so far as a sudden

[1] Adapted from *An Essay on Money and Coins* (1757). Reprinted in *Select Tracts on Currency*, pp. 413-14.

increase of money might ease him in his rent, by lessening the intrinsic value of the specific sum which he had agreed to pay. The same may be said to the merchant, shopkeeper, &c. While all commodities keep the same proportion of value in respect to one another, no one reaps any advantage by the raising of the price in respect of money, of his particular commodity. The complaints of particular persons arise, not from a deficiency of money, of counters in circulation; but from their own want of property, want of skill, address, or opportunity of getting more money; or perhaps only for want of frugality, in spending more than their income or proper share.

20. MONEY AND WEALTH[1]

By JOHN WITHERSPOON

There are many persons who cry, "We must have more paper for a circulating medium, as there is such a scarcity of gold and silver." It is argued, "When I go about from day to day, and cannot collect what is due me, when my creditors are calling upon me and I cannot satisfy them, is not the only explanation the scarcity of money everywhere?" What shall be said to satisfy these persons? I must tell them plainly, it is their poverty, or the nation's poverty and not a want of gold and silver, and if there were an hundred times as much gold and silver in circulation as there is, their poverty and difficulties would be just the same. If these persons read the scriptures they may there learn that in Solomon's time the silver was plentiful *as stones in Jerusalem;* probably they will think that all the people in Jerusalem at that time must have lived like princes, but they must be told, it was added as a necessary consequence that *it was nothing accounted of in the days of Solomon.*

21. A REFUTATION[2]

By BENJAMIN FRANKLIN

As to plenty of money being a benefit to trade and manufactures, we apprehend everyone conversant therein must know that the coin, by which we generally understand money, of every respective state, is by no means the mover of the intercourse or tradings of the world in general. We may say that coins, in general, can no otherwise be

[1] Adapted from *Works*, IV, 230. (Philadelphia: William W. Woodward, 1802.)

[2] Adapted from *The Principles of Trade* (1774), in *Franklin's Works*, II, 394–95 Written jointly and anonymously by Franklin and George Whatley.

useful than as the common measure between man and man, as serving to barter against, or exchange for, all kinds of commodities. Certain it is, that coins cannot be ranked amongst those which are *only of real use*. Let us therefore suppose pieces of coin to be counters, and, to simplify the matter still more, suppose every manufacturer to have of these counters any sum whatever; will it follow that any sort of manufacture shall be industriously attended to, or more work done than when no more counters than just enough to barter for the real wants of meat, drink, and clothes, etc., can be procured by labor? Surely no. It must be the desire of supplying our wants, which excites industry as above hinted; that alone sets trade going, and that only can procure plenty of manufactures.

That the welfare of any state depends upon its keeping *all* its gold and silver, either in bullion or in coin, must be founded on a very narrow principle indeed. All republics we know of wisely think otherwise. Spain, the grand source of silver, has of late years very justly allowed the free exportation of it, silver paying a duty, as in Great Britain lead and tin do; nor prior to this permission could the penal laws in Spain hinder its being exported; for it was a commodity which that kingdom was under a necessity of giving as an equivalent for what was furnished to them by other countries.

Could Spain and Portugal have succeeded in executing their foolish laws of "*hedging in the cuckoo*," as Locke called it, and have kept at home all their gold and silver, those metals would, by this time, have been of little more value than so much lead or iron. Their plenty would have lessened their value. We see the folly of these edicts.

22. A PRACTICAL BUSINESS VIEW TODAY[1]

The great inflow of gold to the United States at the present time is embarrassing. This country does not need gold and does not particularly want gold. We already have such an excess of the metal, and the credit conditions and money rates generally are so easy, that we are confronted with the unusual problem of not knowing just how to employ our unexpectedly large resources in this particular field. The turnabout from the conditions of last fall has been so sudden and so radical that business men and bankers in this country are for the moment at a loss to know just how to act under present circumstances. It is almost like an individual who, having struggled along

[1] Adapted from an editorial in *Moody's Magazine*, March, 1915.

with tremendous liabilities and having hung on the edge of bankruptcy for an indefinite period, suddenly finds himself burdened with an over-surplus of riches and with such a large amount of capital to set actively at work that his new problems are almost as difficult to handle as were those in his former condition.

23. MONEY AND THE SUPPLY OF CAPITAL[1]

By CHARLES J. BULLOCK

A review of the currency history of America reveals the following facts: first, that a strong movement in favor of cheap money has existed continuously in this country from the earliest period of colonization; and secondly, that the persistence of such an agitation has been due, more than to any other single cause, to the constant spread of settlements westward over large areas that have long remained thinly populated. With the growth of numbers, the rise of manufacturing and commercial industries, and the increase of wealth, the desire for a cheap currency has gradually diminished; but this has no sooner taken place in the more populous states than the old phenomena have reappeared in newly settled districts, while any localities that have remained sparsely peopled and devoted chiefly to agricultural pursuits have always furnished a favorable field for the old propaganda.

Back of all the strivings for an inexpensive medium of exchange, each generation of our people has always heard the complaint that our supply of money had been insufficient; and this cry has invariably furnished an unmistakable indication of the underlying cause of the agitation. "No complaint," wrote Adam Smith, in 1776, "is more common than that of a scarcity of money. Money, like wine, must always be scarce with those who have neither wherewithal to buy it, nor credit to borrow it. Those who have either, will seldom be in want either of the money or of the wine which they have occasion for." In the United States an enterprising and resolute people has been engaged for nearly three centuries in occupying and developing a vast area of free land. While natural resources abounded, each newly settled district has always experienced a lack of capital needed to bring the soil under cultivation, to supply means of communication, and to develop manufacturing enterprises. This want might

[1] Adapted from *Essays on the Monetary History of the United States*, pp. 1–4. (The Macmillan Co., 1900.)

have been little felt by a less progressive people; but with us it has been a real and serious obstacle, which has been removed only by the slow growth of wealth and numbers. In order to possess a sufficient supply of metallic money, a nation must convert a portion of its capital into a stock of gold and silver coins or bullion, a process that is expensive, even under the most favorable circumstances. In the United States, prior to the discovery of mines of the precious metals, gold and silver could be obtained only through exchange with foreign countries; and the acquirement and maintenance of an abundant metallic currency was made especially difficult by the poverty of our people in all sorts of capital. The difficulty was intensified still further by the sparseness of settlement and the economic isolation of households and communities, a circumstance which made the monetary circulation sluggish and increased the volume of currency required for the transaction of a given number of exchanges. The accumulated products of our industry were more often converted into other things than money. Each person usually desired to employ in production or exchange whatever gold or silver might come to him; for he had many uses for other kinds of capital and could ill afford to keep on hand a stock of money that appeared to be an idle investment. Therefore it happened that supplies of the precious metals secured in trade tended to move out of the colonies in exchange for other things that were felt to be more necessary.

24. IS MONEY A SUPERIOR KIND OF WEALTH?[1]

BY CHARLES GIDE

The popular answer to this question admits of no doubt. At all epochs and in all places, except among savages, money has occupied an exceptional place in the thoughts and desires of men. They regard it, if not as the only wealth, at any rate by far the most important wealth. Indeed, they appear to measure the value of all other wealth by the quantity of money that can be contained in exchange for it. To be rich is to possess either a large amount of money or the means of obtaining it in exchange for other goods.

But if we ask the economists whether or not money is a superior kind of wealth, the answer will be entirely different from the popular opinion. In fact the first impetus to the growth of a scientific political economy was the protest against the popular conception of

[1] Adapted from *Principles of Political Economy* (Veditz' translation and adaptation), pp. 219–22. (London: D. C. Heath & Co.)

money, regarded by the earlier economists as a mere prejudice. The science had scarcely been founded when Boisguillebert, in 1698, declared, "It is quite certain that money is not a good of itself, and that its quantity has nothing to do with the opulence of a country." Since then the economists have shown little concern about the amount of money and maintained that it is a commodity like all other commodities, and even inferior to others because it is in itself incapable of satisfying any want directly, or of affording any pleasure. It is consequently the only commodity of which we may say that its abundance or scarcity is a matter of perfect indifference. If there are few pieces of money in a country, each one will have a greater purchasing power; if there are many, the purchasing power of each will be smaller. So what does the quantity matter?

These two opinions, however contradictory they seem, may easily be reconciled. The public is right from the individual point of view—the only one which interests it; economists are right from the general or social point of view. The distinction here involved requires some explanation.

Every piece of money must be regarded as a ticket or order drawn on the sum total of existing wealth, giving the bearer the right to claim a part of this wealth not exceeding the value indicated on the coin. It is clearly our individual interest to possess as many of these "orders" as possible; the more we have the richer we are. We know very well that, in themselves, these "orders" can neither satisfy hunger nor slake thirst. Long before economists had pointed out this truth, legend taught the same principle in the tale of King Midas, who died in hunger although surrounded by wealth which his own folly turned into gold. Nevertheless, we regard these "orders" as far more convenient than any other kind of wealth, and we are right in doing so.

Given the present organization of society, the person who desires to obtain an object that he has not produced (and the immense majority of people are thus situated) can get it only by means of two operations: first, by exchanging the product of his labor, or his labor itself, for money; second, by exchanging this money for the object desired. These two operations are called selling and buying. The second of them, purchase, is very simple; by means of money a desired object may easily be obtained. The first process, sale, is much more difficult; an object, even of great value, cannot at all times be readily exchanged for money. Hence the possessor of money occupies a more favorable position than the possessor of any other

commodity; in order to satisfy his wants he has but one operation to perform, and this operation is an easy one. The possessor of any other kind of goods must accomplish two operations, one of which is comparatively difficult. It has been well said that a particular commodity corresponds only to a special and determinate want, while money corresponds to any indeterminate and universal want. The owner of a very useful commodity may not know what to do with it. The possessor of money, on the other hand, is never thus embarrassed; he is always able to find someone to accept it, and if by chance he is at a loss how to make use of it at once, he still has the simple expedient of keeping it for a more favorable opportunity. With other commodities this expedient is not always possible.

But if, instead of considering the position of an individual, we regard the whole mass of individuals constituting society, the point of view changes and the economists' thesis (that the amount of money in a country is a matter of indifference) is more correct. Little do I care for a tenfold increase in the amount of money in my possession if the same increase takes place for all the other members of society. For in such an event I should be no richer than before; since wealth is purely relative, I should not be able to obtain a larger amount of goods. The sum total of wealth out of which our claims or "orders" are paid would be no greater than before, and each "order," i.e., each piece of money, would entitle me to a share only one-tenth as large. In other words, the purchasing power of each coin would be one-tenth as great, or, all prices having been multiplied by ten, my position would not be changed.

25. THE SUPPLY OF STANDARD MONEY REQUIRED[1]

By LYMAN J. GAGE

The amount of standard money required by any country in my opinion cannot be definitely stated. One can only reach a general estimate. In order to arrive at this estimate it is necessary to inquire into the various uses which gold serves.

First, it is practically out of use as a medium of exchange, and the demand for it in that connection need not be considered here. Second, a proper supply of gold is indispensably necessary for settlement of balances of international trade, and our supply should be large enough to permit the exportation of what may be required in such

[1] Adapted from "The Sufficiency of Our Present Currency System," *Sound Currency*, X (1903), 61–63.

settlements without causing serious alarm as to the impairment of our remaining stock. Third, gold serves as a regulator of all other forms of money, including the vast amount of credit currency. There must therefore be a proper ratio of gold reserve to the various forms of credit money in use. What is a proper ratio varies according to time and circumstances. A ratio which at a time of budding prosperity, of reawakening enterprise and full confidence in the future, would be abundant, even superfluous, might prove to be, in an unfolding period of depression, of doubt, distrust, and business failures, dangerously small. But as a general proposition the quantity of gold is not a matter of great importance, for given a certain quantity, be that quantity great or small, it will in the long run tend to relate or establish prices of things and wages of labor. Multiplying the prices of all commodities, labor, and services by ten would not make anyone richer. Dividing prices would not make anyone poorer, since once established the exchange ratios of commodities and the power of labor to purchase goods would not therefore be relatively changed. It is true that a sudden change in prices, either in one direction or the other, would create incidental hardships, because the change in prices could not in the nature of things be uniform or simultaneous, and time contracts would be radically affected.

Were I to put in a single paragraph what I would consider the ideal thing on this question of standard money, gold, it might be stated after this manner: A given quantity of gold, to which the floating volume of credit and the prices of commodities had, through natural laws, operating over a long period of time, become normally related. To this stock of gold, gradual but not sudden accretion is to be desired, sufficient to bear the increasing strain of an increasing volume of trade, an increase large enough to keep prices on a general and continuous level.

C. The Rôle of Money in Industrial Society

26. THE STANDARD OF DEFERRED PAYMENTS AND INDUSTRIAL PROGRESS[1]

By W. CUNNINGHAM

The scarcity of the precious metals in Rome, coupled with their fluctuating value, rendered it exceedingly difficult for anyone to save wealth; they also made men unwilling to risk their accumulations

[1] Adapted from *An Essay on Western Civilization and Its Economic Aspects*, I, 186–87. (Cambridge University Press, 1898.)

in business of any kind, and to use it as capital. The complete uncertainty in regard to prices paralyzed trade, and capitalists were "induced to hoard their coins of pure gold and silver for better days," which never came. Industry did not offer a tempting field, as the enterprising man of business would often have to face the competition of a manufactory organized by the State and controlled by officials whom it would be imprudent to offend. There was even greater disinclination to use capital in agriculture and apply it to permanent improvements. Accumulated wealth was hoarded rather than invested, and general decay ensued; money and circulating capital are not necessary for the maintenance of human life, but they were necessary for the maintenance of a civilized society like the Roman Empire. Since capital was not available, there need be no surprise that labour failed to find employment and that land went out of cultivation; these again are the very circumstances in which population would necessarily decline.

27. MONEY AND CAPITAL ACCUMULATION

By WALTON H. HAMILTON

One of the most important services generally assigned to money is the encouragement of capital accumulation. This function is variously attributed to money as a medium of exchange, to money as a store of wealth, and to money as a measure of values. Yet, since in even a non-exchange society some economic thought is taken for the morrow, no one of these is indispensable to capital formation.

As a medium of exchange money contributes little to capital formation. A farmer may live upon the provisions he has saved while constructing a ditch to protect his crops. He may exchange these directly for the labor of others embodied in the ditch; for the barter system does not preclude an exchange of present for future goods. Even under the complex conditions of today a monetary medium of exchange is unnecessary. Savings are usually deposited in banks in the form of "credit instruments," each possessing a certain number of "units" of value. They are exchanged for certificates of ownership of productive wealth, such as deposit slips, bonds, and stocks.

The emphasis upon money as a storehouse of value is likewise erroneous. True, values can be converted into money which its owner can hoard until he is ready to use it. But in such case the use of the value in question is merely postponed; the lack of an increment

in value sufficiently attests the non-capitalistic character of the operation. Today the processes of accumulating savings and producing technical capital goods are closely synchronized. Through savings individuals surrender their claims to wealth, and through the instrumentality of "financial middlemen" these claims are transferred to those engaged in the technical production of capital goods. Thus in general there is no time interval between saving and production during which values have to be bottled up and preserved.

The contribution of money to capital formation is much less direct. It inheres in the nature of a society highly organized upon the basis of a "pecuniary unit" which is a common denominator of values. Some of the more important aspects of this contribution deserve at least passing notice.

First, calculations on the basis of the "pecuniary unit" are necessary to an appreciation of future values. In a non-calculating society few future values will stand out. There is no way of measuring values of varying degrees of futurity. But the pecuniary calculus easily resolves these. Not only does it place definite values upon future goods, but it estimates with considerable accuracy their cost. Because of their association with the "roundabout" method of production, the latter are varied and numerous. The determination of their values is further complicated by such technical facts as replacement, depreciation, and obsolescence. Consequently an accurate accounting system, based upon a precise unit, is necessary to an appraisal of the costs and values of future goods.

Second, a pecuniary calculus is necessary to a rational comparison of present and future values. Such an instrument enables future, as well as present, needs to be translated into "prices," in which form both can, in competition, make their appeals to the economic motives of man. The whole aggregate of uses, present and future, to which goods can be put is reduced to an intelligible scheme. Thus rational thought can be taken both for today and for tomorrow.

Third, accumulation and production of capital goods are organized, as aggregates, into a comprehensive system. Under a non-exchange system many, lacking means, will wish to invest; others, having means, will lack opportunity for investment. But the system provides no instrument for bringing accumulations and opportunities together. But under the pecuniary system the processes of saving and technical investment are separated. The uses to which capital can be put are gathered together into a nicely arranged scheme.

Likewise, potential savings are aggregated into a similar scheme. Through competition the two aggregates are brought into harmony at a "price" or a "rate of interest."

Fourth, the pecuniary calculus makes possible an intricate mechanism which brings savings and investments into a nicer adjustment. There is created a complex structure of savings and investment banks, trust and mortgage companies, insurance associations, investment companies, and underwriting syndicates, which together bridge the gulf separating the two. By splitting up investments into shares of various sizes these companies are enabled to offer to each capitalist an investment equal to his savings. By issuing different kinds of "securities" they are able to offer risks compatible with the romance in varying temperaments. In like manner, by aggregating or dividing individual savings, they can furnish capital in amounts exact enough to meet the needs of any productive venture. They can also, on varying conditions, supply funds to meet any reasonable risk. Thus saving and investment are alike encouraged by the nicest kind of adjustment between the two processes essential to the formation of capital.

In these several ways an organization of society, based upon the "pecuniary unit," furnishes both the incentives and the means for capital formation.

28. MONEY AND BUSINESS ORGANIZATION[1]

BY THORSTEIN VEBLEN

Economists are in the habit of speaking of money as a medium of exchange, a "great wheel" for the circulation of goods. It may be true in some profound philosophical sense that money values are not the definitive term of business endeavor, and that the business man seeks through the mediation of money to satisfy his craving for consumable goods. Looking at the process of economic life as a whole and taking it in its rationalized bearing as a collective endeavor to purvey goods and services for the needs of collective humanity, the office of the money unit is perhaps rated as something subsidiary, serving to facilitate the distribution of consumable goods to the consumers, the consumption of goods being the objective point of all this traffic. Within the range of business transactions, however, this ulterior

[1] Adapted from *The Theory of Business Enterprise*, pp. 83–85. (Charles Scribner's Sons, 1910.)

end does not necessarily come into view, at least not as a motive that guides the transactions from day to day. The matter is not so conceived in business transactions, it does not so appear on the face of the negotiable instruments, it is not in this manner that the money unit enters into the ruling habits of thought of business men.

The all-dominating issue in business is the question of gain and loss. Gain and loss is a question of accounting, and the accounts are kept in terms of the money unit, not in terms of livelihood, nor in terms of the serviceability of the goods, nor in terms of the mechanical efficiency of the industrial or commercial plant. For business purposes, and so far as the business man habitually looks into the matter, the last term of all transactions is their outcome in money values. The base line of every enterprise is a line of capitalization in money values. In current business practice variations from this base line are necessarily rated as variations on the part of other factors in the case, not as variations of the base line. The business man judges of events from the standpoint of ownership, and ownership runs in terms of money.

29. MONEY AND ECONOMIC ACTIVITY[1]

By WESLEY C. MITCHELL

Writers upon money usually state that it performs three functions, serving as a common denominator of value, a medium of exchange, and a standard of deferred payments. To enumerate the functions of money in this fashion, however, is very far from suggesting the importance of the rôle which money plays in economic life. To understand this rôle attention must be fixed upon the complex mechanism of prices, rather than upon money itself. I may give here but a brief statement of the relations between prices and fundamental economic processes.

From the point of view of the men who direct it, the production of wealth is nowadays a business process of selling goods for more than they have cost and is conducted for the sake of getting money profits. The technical processes involved in various departments of business, farming, manufacturing, transportation, and commerce are, in the eyes of the business men who direct them, simply subordinate parts of this business process: certain of the steps necessary to make profits

[1] Adapted from *Gold Prices and Wages under the Greenback Standard* (1908), pp. 279–81, University of California Publications in Economics, I.

by selling at prices which exceed the money cost. It is hardly too much to say that from the standpoint of the business men in control the production of wealth is simply an incidental feature in the business process of making money.

Alongside these business enterprises incidentally concerned with the production, manufacture, and distribution of material goods stand the business enterprises concerned with finance: banks, trust companies, stock and bond houses—in short, the whole mechanism of the investment and money markets. These enterprises, like the preceding class, are conducted for the sake of pecuniary profits, and their profits depend on selling at prices higher than the prices paid. They represent the highest development and the most complex adjustment of the whole business organization, and all other enterprises are bound to them by the various forms of pecuniary obligations.

The distribution of the wealth produced by enterprises of the first sort, supported by financial aid from enterprises of the second sort, is also effected by means of prices. Wages is the price paid for labor, interest is the price paid for the use of loans, rent the price paid for the use of material goods which must be returned without substantial deterioration, and profits is the residue of the aggregate prices received after the aggregate prices paid for the factors of production, for materials, etc., have been deducted. To the individual, indeed, economic welfare depends primarily upon the money income he is able to get under the conditions presented by the price system and upon the aggregate prices which he must pay for what he wishes to consume. Money prices, in brief, are the formal basis on which the economic relations of individuals in modern society are organized and the formal mechanism by which economic processes are carried on.

30. A PECUNIARY SOCIETY[1]

By H. J. DAVENPORT

Modern society is distinctly a pecuniary society, a society of business. Despite the fact that society was not always pecuniary—has, indeed, been so only for the narrowest margin of years out of a long human history, and may remain so only for the next short swing of the pendulum in the life of man—the political economy that we must study today is the political economy of today. Mainly, under

[1] Adapted from *The Economics of Enterprise*, pp. 21–28. (The Macmillan Co., 1913.)

present conditions, we produce for the market, for exchange, despite the fact that a few generations ago the contrary was the truth. And at present we produce in the larger part for a competitive, impersonal world-market. This is the era of free individual initiative under private property for private gain. So far, indeed, is this the truth that even combination and monopoly may be regarded as merely secondary aspects of competition and of individual initiative. Strike this fact of competition at its very center of tone, and we discover that we are in a régime of price. Money is the focusing point of modern business affairs. It is the standard of values simply because in a society producing for exchange it is the one established intermediate commodity. Therefore, as medium of exchange, it is the standard of immediate and of deferred payments. Through credit the money economy lays hold upon even the distant future. Thus to object that more and more, as society has advanced from a society of isolated production through a barter economy to a money economy, it is now moving over into a credit economy, is really to assert merely that in new and marvelous ways money is taking on a still greater emphasis. More and more, and more and more exclusively, and over an ever-widening field of human effort, human interests and desires and ambitions fall under the common denominator of money. Doubtless many of the best things in life do not get bought and sold. Some of them are not exchangeable; and not all things that could be transferred are men weak enough to sell or other men strong enough to buy. Not every man has his money price. But most good things do, in greater or less degree, submit to the money appraisal. Health is easier for him who can take his ease and who has the wherewithal to pay for good foods and medicines, to travel, to employ good nursing, and to command capable physicians and efficient surgeons. And, in their degree, also, love and pity and respect and place are bought and sold upon the market. It takes a goodly number of dollars to get a child safely born, and even more dollars to achieve for one's self a respectable burial. Much money is power over many things. Money is the standard of value in the sense that all values of all exchangeable things are expressed in terms of it. And this holds, not only of all commodities and services, but of all incomes and of all capitals. The capital of a banking house, or a factory, or a railroad company, is not a congeries of tangible things, but a pecuniary magnitude—so many dollars. All economic comparisons are made in money terms, not in terms of subsistence or of beauty or of artistic merit or of moral

deserving. This same standard tends to become also the test and measure of human achievement. Men engage in business, not solely to earn a livelihood, but to win a fortune in a pecuniary sense. To win by this money test is to certify one's self tangibly and demonstrably as having scored in the most widespread and absorbing of competitions. Is one a great artist—what do his pictures sell for? Or what is the income of this leading advocate? or of that famous singer? How great are the author's royalties? The pecuniary standard tends to be carried over into non-pecuniary fields.

It is almost past belief how far both in degree and in direction money valuations pervade all our thinking. Cheapness is prone to be synonymous with ugliness, richness with beauty, elegance with expensiveness. No one can tell for himself where the really aesthetic begins and the sheer pecuniary ends. In the field of morals, also, the so-called cash-register conscience is an actual thing. And one might go still further and note that almost all great political issues, and almost all absorbing social problems, and almost all international complications rest upon a pecuniary basis. Our national problems are tariff, labor unions, strikes, money, trusts, banking, currency, railroads, conservation of resources, shipping, taxation. Success in elections, in the selection of senators, in the making of laws, and in the selection of judges is prone to be desired for financial ends and to be decided by pecuniary means. Diplomatic complications hinge upon trade connections, the open door, fisheries and sealeries, colonies for markets, and spheres of influence for trade. Navies are trade guardians and trade auxiliaries. Eliminate from local politics the influence of the public-service corporation, of the contractor, and of the seekers for special pecuniary privileges, and what is left of the municipal problem will be mostly the pecuniary nexus of the slum with the ballot box, of the saloon with the police system, and of saloon and slum and brothel with the city hall.

It is, in fact, the value problem—or more specifically and more accurately for present society, the problem of market price—that is the central and unifying problem of present-day economics. Price, then, must attend and characterize all things that are economic; and all things so attended are so far economic in character. And more things than those which accurately are material must fall within the scope of price. Price extends its sway to the utmost limits of whatever is property, tangible or intangible—whether material or immaterial. Property covers—and therefore price covers—debts, good

will, franchises—everything that is bought or sold. Price includes also many non-property facts—human services, such as the goods for which payment is made to the actor, preacher, teacher, or singer. And, by the way, all efforts or processes are economically productive for which a price is so paid or which, directly or indirectly, enhance the price.

Precisely because the present economic life is organized upon lines of private property, of pursuit of individual gain, and of production for exchange, it is inevitable that the center about which all economic activity revolves is the medium of exchange, the price standard. It is this fact which in turn fixes the problem of price as the central problem and the organizing interest of current political economy as a science. The proof of this is, however, mostly to be found in that constant return to the price problem which we find inevitable as we approach, one after another, the subordinate problems of the science. And these problems, in turn, declare their subordinate character by this very fact that they are only to be solved by an appeal to the analysis and the laws of price. In the fact that anything sells at all in the present economic order is implied its sale in terms of price. Wages, for example, are the price of the services of employed labor; profit, the price reward of the independent, self-employed laborer (the entrepreneur, enterpriser, *Unternehmer*, or *imprenditor*); rent, the price commanded by property lent in time for hire; interest, the per cent which the time use of wealth, in terms of price, bears to the total price. Each of these is a price quantity or item, and each presents itself specifically as a problem of price adjustment.

31. THE RÔLE OF MONEY IN ECONOMIC ORGANIZATION

By WALTON H. HAMILTON

The institution of money is inseparably linked with the whole complex of our social arrangements. Its part in facilitating market operations is so direct and evident that it is generally conceived of as a mere medium of established exchanges or a mere measure of predetermined values. Yet a little reflection shows that it permeates every aspect of economic life, conditions all economic activity, and brings to all things economic mutual commensurability. The "pecuniary unit," which is its chief manifestation, supplies one of the

elements essential to the development and maintenance of a comprehensive industrial system. Let us consider somewhat specifically a few of the numerous contributions which this "pecuniary unit" makes to the establishment of the economic order.

1. *It facilitates economic calculation.*—In an isolated agrarian community, composed of people possessing limited resources and loving the "simple life," few commodities will be produced. Crudely measuring costs against returns, and goods against goods, the people will not formulate with any exactness a unit in terms of which values can be gauged. Such crudeness in calculation will find its counterpart in an economic order wherein the family is the economic unit, where there is little division of labor, where natural resources and personal talents are little developed, and where production and consumption are interdependent. But if resources and talents are to be developed, if goods are to be produced to satisfy a larger range of wants, if tasks are to be distributed between individuals and communities, and if these are to be organized into a larger and more complex whole, a rather precise instrument for the calculation of values must be found. And, as the economic entity becomes larger, its use of resources more intensive, its products more varied, and its agencies more interdependent, values must be calculated with more and more precision. We have often been told that "money is the measure of values"; yet, in point of fact, it is more exact to say that the "pecuniary unit" is a common denominator of all values, for the existence of such a unit makes economic calculation possible. It furnishes the indispensable term for the establishment of accounting systems, which are only devices for accurately analyzing schemes of values. It is evident that, as the unit becomes more precise, the precision of economic calculation is correspondingly increased.

2. *It encourages rational economic judgment.*—If one's economic world contains but a handful of tasks and goods, he can, quite rationally and without complex calculations, choose *this* rather than *that*. But in a world in which his judgment is confronted at every point by a number of alternatives, and every activity has pecuniary connections with a large number of others, a decision is fraught with difficulties. To be rationally compared the alternatives must be reduced to quantitative terms. Since their differences are likely to be small, the determination of their values requires precision. Salvation is to be found in the "magic ritual of calculation" based upon the "pecuniary unit." The presence of such a unit, further, encourages the de-

veloping of the "calculating mind," which the mediaeval man would have regarded as an intellectual curiosity but which the modern business man esteems a priceless treasure. It also stimulates the development and use of more exact accounting systems and the exclusion from economic judgments of non-pecuniary considerations. It is only as economic judgments approach rationality that values are kept consistent in a delicately organized economic order.

3. *It permits the organization of consumption.*—Where an individual or a group consumes its own products, it is a slave to its limited resources and its technical limitations. But under an organized pecuniary system this thraldom is broken. Individual or group, no longer compelled to satisfy all its wants, can choose the tasks which resources or technical efficiency suggest as most advantageous. For his labor the individual receives, not the wheat or the pig iron or the shoes he has produced, but "generalized purchasing power." For his consumption he chooses freely, spending his purchasing power upon a large number of goods, quite oblivious to his lack of technical versatility. For him consumption is thus differentiated from production and organized upon the basis of a rational calculus. Since other individuals are acting likewise, the consumption of wealth by society is elaborated into a highly complex system.

4. *It permits the organization of production.*—In an economic order without the division of labor, the "pecuniary unit" is unnecessary to the organization of production; but where specialization appears it is far otherwise. The single establishment uses divers kinds of laborers, a medley of raw materials, and quite varied industrial equipment. The costs of these and their proportions must be accurately gauged. Likewise the "production system" is a co-ordinated collection of specialized establishments that defies diagrammatic presentation. The individual establishment receives its "raw materials" from many sources; its finished products become the raw materials of many goods. The correlation of business with business is so close that "margins," which represent allowances for "friction," are very small. The organization and maintenance of the single establishment, and the integration of these into a properly co-ordinated "productive system," are alike dependent upon careful calculation and accurate pecuniary judgment, the basis of which is the "pecuniary unit."

5. *It articulates productive and consumptive activities into an organic system.*—In a self-sufficient community, possessing no division of

labor, consumption and production are automatically organized into a system. In a world composed of such communities the organization, while complete, appears crude and inexact; for there is quite likely to be a surplus of certain products in some communities and a dearth of them in others. Accordingly an exact adjustment of goods and wants, of production and consumption, is possible only under an extended economic order. But here the articulation of a myriad of productive agencies and as many consumptive activities into a single coherent scheme is a task of great magnitude. In the case of each good, demand and supply must approximately correspond; while, for the whole, resources must be used in the production of those particular goods which satisfy wants pecuniarily most potent. Fortunately the "pecuniary unit" enables this adjustment to be made with sufficient precision. It enables each good and the satisfaction of each want to have placed upon it a "price," or a quantitative expression of its value in terms of the "pecuniary unit." Price is a flexible medium through which demand and supply are adjusted to each other. As we have learned elsewhere, an increase in demand raises the price and stimulates increased production, and an increase in supply lowers price and discourages production; while decreases in demand and supply have antithetical effects. Thus the "pecuniary unit," through "price," brings the demand and supply of a particular article into harmony. But as, impelled by its price, the demand or supply of an article is changed, it becomes more or less advantageous economically to produce or consume other articles. Accordingly, through price-changes, the demand and supply of other articles are affected. They, likewise, in the end, will harmonize, though likely at new prices and in changed amounts. Thus the demand for and supply of each article are intimately associated through price with those of a large number of other articles. Hence a larger view reveals an extremely complex and intricately organized system for the "production and consumption of wealth," supported by a vast and harmonious complex of pecuniary values. At the basis of this intricate and gigantic, yet orderly, "price-structure" lies the "pecuniary unit."

6. *It gives stability to the economic order.*—If the economic order were a gigantic mechanism, composed of unchangeable elements, a static price-structure would preserve it. But the elements of our system are quite variable: population may increase, the technical system may change, industrial equipment may be augmented, the

nature of institutions may vary, or popular caprice may affect new wants. Confronted by one of these contingencies, a static scheme of prices would introduce elements of disintegration into the system. But the "pecuniary unit," stable itself, allows prices to change in response to changed circumstances. Thus it induces the necessary adjustments between production and consumption and leaves the price-structure capable of sustaining a society as highly integrated as before. Naturally, changed prices introduce inconsistencies into the price-structure, but in time these tend to disappear. Since change is constantly occurring, the system always possesses a degree of inconsistency. This is the very purpose of the "margins" allowed to interlocking businesses.

Paradoxical as it may appear, money must be inconspicuous in itself if it would best fill the rôle of economic organizer. If it be heavy, or impure, or if it otherwise entail cost in making exchanges, it restricts by so much the development of a highly organized society. When economical substitutes are used in actual exchanges, and money ceases to be a "medium of exchange," it becomes a more exact measure of value and a more efficient organizer of economic activities. Likewise, the more certain its value, the more effective its work in sustaining the economic order. Since it is associated with some such commodity as gold, the "pecuniary unit" cannot be exact. But inexactness, either actual or anticipated, has always threatened chaos. There have been times when we were uncertain as to what was to be the "standard for deferred payments" or "the definition of the unit of value." There have been times, for instance periods of great gold production, when the amount of value in "the unit" was being radically changed. Both were accompanied by a partial disarrangement of the price-structure and a corresponding disintegration of the industrial system. In such periods it is particularly difficult to measure present and future values in terms of each other, and economic judgments which guide the system as a whole are not sufficiently rational. This tendency to disintegration will remain until an "inflexible unit of purchasing power" is established. When that is done, questions of monetary theory will have only academic interest and money will perfectly perform its organizing function.

The organizing function of the pecuniary unit is not confined to the present economic order. The pecuniary unit is a fit companion for such institutions as private property, free contract, pecuniary competition, and individual initiative. But its service would be equally

indispensable in a society quite unlike ours. Under socialism, for instance, even though the state took the initiative in production, to guide its economic judgment it would require a means for determining the quantities in which its varied goods were to be produced. This would require a means for exact valuation, such as could be found only in a proper accounting system, for which the "pecuniary unit" must furnish the basis. Accordingly we may conclude that the "pecuniary unit," the principal manifestation of money, is an agency of prime importance in establishing and maintaining a complex economic order.

II

THE ORIGIN AND DEVELOPMENT OF MONEY

Introduction

The institution of money is of venerable age, evidence of its existence in one form or another going back as far as recorded history. Its beginnings being thus shrouded in antiquity, the nature of its origin is consequently more or less a matter of numismatical speculation. The study of the use of money among primitive tribes of our own time, however, has thrown considerable light on the subject, and a number of different theories have been advanced for its development. The chief of these are set forth in the selections below.

In connection with these readings it is important to differentiate carefully the various functions of money and to ascertain in each case what particular function, or combination of functions, has been performed by the various kinds of currency enumerated. It will be seen that in many cases the money in use has not performed all the functions discussed under Chapter i. Indeed, the various functions did not develop simultaneously, the standard of deferred payments, for instance, being of relatively late origin. In regard to its functions as a medium of exchange and a common denominator of value, there has been much discussion over the question of priority.

At different times and among different peoples a great variety of commodities has been used as money, but gradually with the evolution of commerical civilization the precious metals, gold and silver, have come to be almost exclusively used as the bases of monetary systems. The reasons for this evolution are shown in the selections under Section C. It is particularly important to study the table of the production of the precious metals in connection with the adoption of gold and silver for monetary use.

It will be observed that one of the most important reasons for the universal adoption of the precious metals as money is their adaptability to coinage, thereby furnishing a uniform system of currency. The development of a good system of coinage, however, has been a long and tedious process; for although money appears to have been

minted after a fashion in very ancient times it was not until quite recently that a really satisfactory method of coining money was perfected. The consequences of a bad system of coinage have been disastrous from every standpoint; and for centuries the perpetually "unfortunate state of the currency" was a very serious barrier to commercial progress.

A. Origin of Primitive Money

32. THE ORIGIN AND USE OF MONEY[1]

BY ADAM SMITH

In order to avoid the inconvenience of barter every prudent man in every period of society, after the first establishment of the division of labor, must naturally have endeavored to manage his affairs in such a manner as to have at all time by him, besides the peculiar produce of his own industry, a certain quantity of some one commodity or other, such as he imagined few people would be likely to refuse in exchange for the produce of their industry.

Many different commodities, it is probable, were successively thought of and employed for this purpose. In all countries, however, men seem at last to have been determined by irresistible reasons to give the preference, for this employment, to metals above every other commodity. Metals can not only be kept with as little loss as any other commodity, scarcely anything being less perishable than they are, but they can likewise without any loss be divided into a number of parts, and by a fusion of those parts can easily be reunited again, a quality which no other equally durable commodities possess, and which more than any other quality renders them fit to be the instruments of commerce and circulation.

33. ORNAMENTATION AND MONEY[2]

BY W. W. CARLILE

Let us get rid, once for all, of the idea that a commodity owes its "adoption" as money to any "convention" tacit or explicit entered into with each other by the members of primitive communities. The criticism at once suggests itself with reference to Adam Smith's explanation of the origin of money, that if the prudent man could

[1] Adapted from *The Wealth of Nations*, Book I, chap. iv.

[2] Adapted from *The Evolution of Modern Money*, pp. 225–70. (The Macmillan Co., 1901.)

find any commodity that few would refuse in exchange for their products, then money was already virtually established. The very thing that we want to know is, how did first one commodity, then another, and finally gold and silver, attain such a degree of universal acceptability as ensured their being refused by none in exchange for their products?

It may be worth while, first, to take note of those characteristics which render a commodity conspicuously unfit for its choice as money. The eminent German historian, Mommsen, observes: "The commodity that becomes money must over all things not be one that is indispensable for the supply of the most urgent material needs." The reason that prime necessities of life never become money is plainly that the desire for them is dependent upon bodily appetites, and is therefore liable at any moment to satiation. If a man had not more than enough of wheat, for example, to satisfy present hunger, he would not part with any of it. If, on the contrary, he and the rest of the community had enough of it for present wants, together with such provision for future needs as they regarded as adequate, then any man who had a superfluity of it would not be able to barter away any part of it on any terms whatsoever. No one would take it off his hands. The only circumstances in which wheat could conceivably assume a position anything like that of money would be in the event of there being an export outlet for it. It was such an export outlet that gave currency to tobacco in Virginia. "Since tobacco has in unfailing demand for shipment abroad it was always readily taken at the country store." When, however, we take the world as a whole, or any self-contained section of it, like Europe in the early Middle Ages, there can evidently be no outlet constantly open for any commodity, so far as the conditions of space are concerned. There may, however, be an outlet in time, that is to say, the whole surplus of some commodity which is not required to supply present wants may be absorbed for the purposes of provision for the future; and this, as a matter of fact, is what happens with regard to the monetary commodity. The origin of money is thus essentially connected with that stage in human development when men begin to think before and after," to make provision for the future.

The commodity which would best secure a man's future well-being would not be so much the commodity best adapted for immediate use by himself or his dependents as the commodity which would be most efficient in securing for him the services of his neighbors or

of strangers unconnected with him. We find, moreover, and not without surprise, that the commodity of greatest direct utility is not the most useful in procuring the services of others, or in making provision for the future. On the contrary, the commodity most highly prized is usually one which could easily be dispensed with.

"Wherever we come across man on the surface of the globe," says M. Babelon, "we find that it is the superflous which by instinct seems to him the most necessary; man has scarcely learnt the use of clothes before he hangs onto his neck, his arms, his legs, his ears, necklaces, bracelets, rings, and pendants of every shape, in the manufacture of which the precious metals are always and everywhere preferred. Ever since the beginning of the world, the pursuit of gold and silver has dominated everything; ages before the invention of money and the appearance of the legislator nations made war with each other for the possession of the precious metals, organized for their acquisition large and perilous expeditions, which have left their memory in history and in fable, such as the expedition of the Argonauts in search of the Golden Fleece, the adventures of Hercules in the Garden of the Hesperides, and the voyages of the ships of Tyre and Sidon to the country of Pharsis."

These precious metals which were thus passionately sought for purposes of adornment naturally became the means of making provision for the future, and of reckoning wealth. They served at one and the same time the purposes of ornament and of money. The possession of gold and silver ornaments gave distinction and social prestige to the owners. Everyone prized the precious metals, therefore, and in consequence their general acceptability made them most desirable commodities for monetary purposes.

34. THE ORIGIN OF MEDIA OF EXCHANGE[1]

By KARL MENGER

It has long been the subject of universal remark in centers of exchange, that for certain commodities there existed a greater, more constant, and more effective demand than for other commodities less desirable in certain respects. The person who wishes to acquire certain definite goods in exchange for his own is in a more favourable position if he brings commodities of this kind to market than if he visits the market with goods which cannot display such advantages,

[1] Adapted from "The Origin of Money," *Economic Journal*, II (1892), 247–52.

or at least not in the same degree. Thus equipped he has the prospect of acquiring such goods as he finally wishes to obtain, not only with greater ease and security, but also, by reason of the steadier and more prevailing demand for his own commodities, at prices corresponding to the general economic situation—at economic prices. Under these circumstances when anyone has brought goods not highly salable to market, the idea uppermost in his mind is to exchange them, not only for such as he happens to be in need of, but, if this cannot be effected directly, for other goods also, which, while he did not want them himself, were nevertheless more salable than his own. By so doing he certainly does not attain at once the final object of his trafficking, to wit, the acquisition of goods needful to *himself*. Yet he draws nearer to that object. By the devious way of a mediate exchange he gains the prospect of accomplishing his purpose more surely and economically than if he had confined himself to direct exchange. Now in point of fact this seems everywhere to have been the case. Men have been led, with increasing knowledge of their individual interests, each by his own economic interests, without convention, without legal compulsion, nay, even without any regard to the common interest, to exchange goods destined for exchange for other goods equally destined for exchange, but more salable.

With the extension of traffic in space and with the expansion over ever longer intervals of time of provision for satisfying material needs, each individual would learn, from his own economic interests, to take good heed that he bartered his less salable goods for those special commodities which displayed, besides the attraction of being highly salable in the particular locality, a wide range of salableness both in time and place. These wares would be qualified by their costliness, easy transportability, and fitness for preservation (in connection with the circumstance of their corresponding to a steady and widely distributed demand) to insure to the possessor a power, not only "here" and "now," but as nearly as possible unlimited in space and time generally, over all other market goods at economic prices.

When the relatively most salable commodities have become "money," the event has in the first place the effect of substantially increasing their originally high salableness. Every economic subject bringing less salable wares to market, to acquire goods of another sort, has thenceforth a stronger interest in converting what he has

in the first instance into wares which have become money. For such persons, by the exchange of their less salable wares for those which as money are most salable, attain not merely, as heretofore, a higher probability, but the certainty of being able to acquire forthwith equivalent quantities of every other kind of commodity to be had in the market. And their control over these depends simply upon their pleasure and their choice. *Pecuniam habens, habet omnem rem quem vult habere.*

On the other hand, he who brings other wares than money to market finds himself at a disadvantage more or less. To gain the same command over what the market affords, he must first convert his exchangeable goods into money. The nature of his economic disability is shown by the fact of his being compelled to overcome a difficulty before he can attain his purpose, which difficulty does not exist for, i.e., has already been overcome by, the man who owns a stock of money.

Thus the effect produced by such goods as are relatively most salable becoming money is an increasing differentiation between their degree of salableness and that of all other goods. And this difference in salableness ceases to be altogether gradual and must be regarded in a certain aspect as something absolute. The practice of everyday life, as well as jurisprudence, which closely adheres for the most part to the notions prevalent in everyday life, distinguish two categories in the wherewithal of traffic—goods which have become money and goods which have not. And the ground of this distinction, we find, lies essentially in that difference in the salableness of commodities set forth above—a difference so significant for practical life and which comes to be further emphasized by intervention of the state.

It is obvious how highly significant a factor is habit in the genesis of such generally serviceable means of exchange. It lies in the economic interests of each trafficking individual to exchange less salable for more salable commodities. But the willing acceptance of the medium of exchange presupposes already a knowledge of these interests on the part of those economic subjects who are expected to accept in exchange for their wares a commodity which in and by itself is perhaps entirely useless to them. It is certain that this knowledge never arises in every part of the nation at the same time. It is only in the first instance a limited number of economic subjects who will recognize the advantage in such procedure, an advantage

which, in and by itself, is independent of the general recognition of a commodity as a medium of exchange, inasmuch as such an exchange, always and under all circumstances, brings the economic unit a good deal nearer to his goal, to the acquisition of useful things of which he really stands in need. But it is admitted that there is no better method of enlightening anyone about his economic interests than that he perceive the economic success of those who use the right means to secure their own. Hence it is also clear that nothing may have been so favourable to the genesis of a medium of exchange as the acceptance, on the part of the most discerning and capable economic subjects, for their own economic gain, and over a considerable period of time, of eminently salable goods in preference to all others. In this way practice and habit have certainly contributed not a little to cause goods, which were most salable at any time, to be accepted, not only by many, but finally by all, economic subjects in exchange for their less salable goods: and not only so, but to be accepted from the first with the intention of exchanging them away again.

It is not impossible for media of exchange, serving as they do the commonweal in the most emphatic sense of the word, to be instituted also by way of legislation, like other social institutions. But this s neither the only nor the primary mode in which money has taken ts origin. This is much more to be traced in the process depicted bove, notwithstanding the nature of that process would be but ery incompletely explained if we were to call it "organic," or denote oney as something "primordial," of "primeval growth," and so rth. Putting aside assumptions which are historically unsound, can come fully to understand the origin of money only by learning view the establishment of the social procedure, with which we are ling, as the spontaneous outcome, the unpremeditated resultant, articular, individual efforts of the members of a society who have e by little worked their way to a discrimination of the different ees of salableness in commodities.

5. THE ORIGIN OF MONEY THROUGH INTERTRIBAL RELATIONS[1]

By CARL BÜCHER

ne fancies the genesis of exchange to have been very easy, se civilized man is accustomed to find all that he needs ready at the market or store and to be able to obtain it for money.

dapted from *Industrial Evolution*, pp. 60–68 (Wickett's translation). Holt & Co., 1893.)

With primitive man, however, value and price were by no means current conceptions. The first discoverers of Australia found invariably that the aborigines had no conception of exchange. The ornaments offered them had no power whatever to arouse their interest; gifts pressed upon them were found later strewn about in the woods where they had been cast in neglect. Yet there was between tribes a brisk trade in pots, stone hatchets, hammocks, cotton threads, necklaces of mussel shells, and many other products.

This exchange between tribes arises by way of presents, or robbery, spoils of war, fine, compensation, and winning in gaming. Within the tribe goods are shared largely in common. It is looked upon as theft if a herd of cattle is slaughtered and not shared with one's neighbors, or if one is eating and neglects to invite a passer-by. Anyone can enter a hut at will and demand food; and he is never refused. Whole communities, if a poor harvest befall, visit their neighbors and look to them for temporary support. For articles of use and implements there exists a universal custom of loaning which really assumes the character of a duty; and there is no private ownership of the soil. In such a community there is no occasion for direct barter. Exceptions occur when purchasing a wife and making presents to the medicine man, the singer, the dancer, and the minstrel, who are the only persons carrying on a species of separate occupation.

From tribe to tribe there prevail rules of hospitality, which recur with tolerable similarity among all primitive peoples. The stranger on arriving receives a present which after a certain interval he reciprocates, and at his departure another present is handed him. On both sides wishes may be expressed with regard to these gifts. In this way it is possible to obtain things required or desired, and success is the more assured inasmuch as neither party is absolved from the obligations of hospitality until the other declares himself satisfied with the presents. This custom of reciprocal gifts of hospitality permits rare products of a land or artistic creations of a tribe to circulate from people to people, and to cover just as wide distance from their origin as in the case of modern trade.

Once originated, exchange long retains the marks of its descent in the rules that are attached to it and which are taken directly from the customs connected with gifts. Among many peoples a gift precedes or follows a deal; the "good measure" of our village storekeepers and "treating" are survivals of this custom. To decline

without grounds an exchange that has been offered passes among the Negroes as an insult, just as the refusal of a gift among ourselves. The idea that service interchanged must be of equal value can hardly be made intelligible to primitive man.

As time passes, exchange creates from tribe to tribe its own contrivances for facilitating matters. Most important of these are markets and money. Markets are uniformly held among Negroes, East Indians, and Polynesians in open places, often in the midst of the primeval forests, on the tribal borders. They form neutral districts within which all tribal hostilities must cease; whoever violates the market peace exposes himself to the severest punishments. Each tribe brings to the market whatever is peculiar to it; one honey, another palm-wine, and a third dried meat, still another earthenware or mats or woven stuffs. The object of the interchange is to obtain products that cannot be procured in one's own tribe at all, or at least cannot be produced so well or so artistically as in neighboring tribes. This must again lead each tribe to produce in greater quantities than it requires those products which are valued among the tribes not producing them.

Now with regard to money. How much has been written and imagined about the many species of money among primitive peoples, and yet how simple the explanation of their origin! The money of each tribe is that trading commodity which it does not itself produce, but which it regularly acquires from other tribes by way of exchange. Such an article naturally becomes the universal medium of exchange for the tribe. It is the measure of value according to which property is valued. Fellow-tribesmen soon come to employ it also in transferring values, for because of its scarcity it is equally welcome to all. Thus is explained what our travellers have frequently observed, that in each tribe, often in passing from village to village, a different money is current. In this way also is to be explained the further fact, which has come under observation, of exchangeable commodities naturally scarce, such as salt, cowry shells, and bars of copper, or products of rare skill, such as European calicoes, guns, powder, knives, becoming general mediums of exchange.

B. Forms of Primitive Money

36. REQUISITES OF A SATISFACTORY MONEY MATERIAL[1]

By W. STANLEY JEVONS

To decide upon the best material for money is a problem of great complexity, because we must take into account at once the relative importance of the several functions of money, the degree in which money is employed for each function, and the importance of each of the physical qualities of the substance with respect to each function. In a simple state of industry money is chiefly required to pass about between buyers and sellers. It should then be conveniently portable, divisible into pieces of various size, so that any sum may readily be made up, and easily distinguishable by its appearance, or by the design impressed upon it. When money, however, comes to serve, as it will at some future time, almost exclusively as a measure and standard of value, the system of exchange being one of perfected barter, such properties become a matter of comparative indifference, and stability of value, joined perhaps to portability, is the most important quality. Before venturing, however, to discuss such complex questions, we must proceed to a preliminary discussion of the properties in question, which may thus perhaps be enumerated in the order of their importance: (*a*) utility and value; (*b*) portability; (*c*) indestructibility; (*d*) homogeneity; (*e*) divisibility; (*f*) stability of value; (*g*) cognizability.

a) *Utility and value.*—Since money has to be exchanged for valuable goods, it should itself possess value, and it must therefore have utility as the basis of value.

When once a substance is widely employed as money, it is conceivable that its utility will come to depend mainly upon the services which it thus confers upon the community. Gold, for instance, is far more important as the material of money than in the production of plate, jewelry, watches, gold-leaf, etc. A substance originally used for many purposes may eventually serve only as money, and yet, by the demand for currency and the force of habit, may maintain its value. The cowry circulation of the Indian coasts is probably a case in point. The importance of habit, personal or hereditary, is at least as great in monetary science as it is in morals and sociological phenomena generally. There is no reason to suppose that the value of

[1] Adapted from *Money and the Mechanism of Exchange* (1875), pp. 30–39. (D. Appleton & Co.)

gold and silver is at present due solely to their conventional use as money. These metals are endowed with such singularly useful properties that, if we could only get them in sufficient abundance, they would supplant all the other metals in the manufacture of household utensils, ornaments, fittings of all kinds, and an infinite multitude of small articles, which are now made of brass, copper, bronze, pewter, German silver, or other inferior metals and alloys. Moreover, the beautiful lustre of gold and silver must have excited admiration among all peoples at all times.

b) *Portability.*—The material of money must not only be valuable, but the value must be so related to the weight and bulk of the material that the money shall not be inconveniently heavy on the one hand, nor inconveniently minute on the other. Iron money could not be used in cash payments at the present day, since a penny would weigh about a pound, and instead of a five-pound note, we should have to deliver a ton of iron. During the last century copper was actually used as the chief medium of exchange in Sweden; and merchants had to take a wheelbarrow with them when they went to receive payments in copper dalers.

The portability of money is an important quality, not merely because it enables the owner to carry small sums in the pocket without trouble, but because large sums can be transferred from place to place, or from continent to continent, at little cost. The cost of conveying gold or silver from London to Paris, including insurance, is only about four-tenths of 1 per cent; and between the most distant parts of the world it does not exceed from 2 to 3 per cent.

c) *Indestructibility.*—If it is to be passed about in trade, and kept in reserve, money must not be subject to easy deterioration or loss. It must not evaporate like alcohol, nor putrefy like animal substances, nor decay like wood, nor rust like iron.

d) *Homogeneity.*—All portions of specimens of the substance used as money should be *homogeneous*, that is, of the same quality, so that equal weights will have exactly the same value. In order that we may correctly count in terms of any unit, the units must be equal and similar, so that twice two will always make four. If we were to count in precious stones, it would seldom happen that four stones would be just twice as valuable as two stones.

e) *Divisibility.*—Closely connected with the last property is that of divisibility. Every material is, indeed, mechanically divisible, almost without limit. The hardest gems can be broken, and steel

can be cut by harder steel. But the material of money should be not merely capable of division, but the aggregate value of the mass after division should be almost exactly the same as before division.

f) Stability of value.—It is evidently desirable that the currency should not be subject to fluctuations of value. This would be a matter of comparatively minor importance were money used only as a measure of values at any one moment, and as a medium of exchange. If all prices were altered in like proportion as soon as money varied in value, no one would lose or gain, except as regards the coin which he happened to have in his pocket, safe, or bank balance. But practically speaking, people do employ money as a standard of value for long contracts, and they often maintain payments at the same variable rate, by custom or law, even when the real value of the payment is much altered. Hence every change in the value of money does some injury to society.

g) Cognizability.—By this name we may denote the capability of a substance to be easily recognized and distinguished from all other substances. As a medium of exchange, money has to be continually handed about, and it will occasion great trouble if every person receiving currency has to scrutinize, weigh, and test it. If it requires any skill to discriminate good money from bad, poor ignorant people are sure to be imposed upon.

Under cognizability we may properly include what has been aptly called *impressibility*, namely, the capability of a substance to receive such an impression, seal, or design as shall establish its character as current money of certain value. We might more simply say that the material of money should be *coinable*.

37. PRIMITIVE SYSTEMS OF CURRENCY[1]

BY WILLIAM RIDGEWAY

When in a certain community one particular kind of commodity is of general use and generally available, this comes to form the unit in terms of which all values are expressed. The nature of this barter-unit will depend upon the nature of the climate and geographical position, and likewise upon the stage of culture to which the people have attained.

In the hunting stage, all the property of each individual consists in his weapons and implements of war and the chase, and the skins of

[1] Adapted from *Origin of Currency and Weight Standards*, pp. 11–30. (Cambridge University Press, 1892.)

wild beasts which form his clothing, and sometimes the cover of his hut or wigwam.

At a later stage, when he has succeeded in taming the ox, the sheep or the goat, or the horse, he is the owner of property in domestic animals, whose flesh and milk sustain him and his family, and whose skins and wool provide his clothing. By this time too he has found out that it is better to make the captive whom he has taken in war into a hewer of wood and drawer of water than merely to obtain some transient pleasure from eating him after putting him to death by torture, or by wearing his skull or scalp as personal decorations. This is now the pastoral or nomad stage.

Next comes the more settled form of life, when the cultivation of land and the production of the various kinds of cereals render a permanent dwelling-place more or less necessary. Property now consists, not merely in slaves and domestic animals, but likewise in houses of improved construction, and large stores of grain. Man now possesses certain of the metals, gold and copper being the first to be known. How does he appraise these metals when he exchanges them with his neighbor? We shall find that he estimates them in terms of cattle, and that he at first barters them all by measures based on the parts of the human body, a method which continues to be employed for copper and iron long after the art of weighing has been invented; next he estimates his gold by certain natural units of capacity such as a goosequill, and finally fixes the amount of gold which is equivalent to a cow by setting it in a rude balance against a certain number of natural seeds of plants.

Such is the process which history tells us has taken place in the temperate regions of Asia and Europe, Africa and America. The development varies greatly, however, with the differing conditions of life in different regions. In Arctic regions we find the skins of certain animals serving as units of account, in spite of the difference in value between those of different quality and rarity. In the territory of the Hudson's Bay Company, even after the use of coined money had been introduced among the Indians, the skin was still in common use as the money of account. A gun nominally worth forty shillings brought twenty "skins." (This term is the old one used by the Company.) One skin (beaver) is supposed to be worth two shillings, and it represents two marten, and so on. "You heard a great deal about skins at Fort Yukon, as the workmen were also charged for clothing, etc., in this way." Similarly in the extreme north of Asia we find some

Ostiak tribes using the skin of the Siberian squirrel as their unit of account. Among the Haidas and all along the coast the blanket now takes the place of the beaver-skin currency of the interior of British Columbia and of the Northwest Territory. The blankets used in trade are distinguished by the points or marks on the edge, woven into their texture, the best being four-point, the smallest and poorest one-point. The acknowledged unit of trade is a single two-and-a-half-point blanket, now worth a little over $1.50. Everything is referred to this unit, even a large four-point blanket is said to be worth so many *blankets*. There is also the "Copper," "an article of purely conventional value and serving as money. This is a piece of native metal beaten out into a flat sheet and made to take a peculiar shape. These are not made by the Haidas—nor, indeed, is the native metal known to exist in the islands—but are imported as articles of great worth from the Chilcat country north of Sitka. Much attention is paid to the size and make of the copper, which should be of uniform but not too great thickness, and should give forth a good sound when struck with the hand. At the present time spurious coppers have come into circulation, and although these are easily detected by an expert, the value of the copper is somewhat reduced and is often more nominal than real. Formerly ten slaves were paid for a good copper as a usual price, now they are valued at from forty to eighty blankets." It is obvious that such costly imported articles, though now used as occasional higher units of account—much as we employ fifty-pound notes—must have had some definite use, owing to which they were so highly prized. The attention paid to their tone would lead us to conjecture that they were employed as a kind of gong, and further on we shall find certain peoples of Further Asia paying a large price in buffaloes for gongs.

When we turn to the torrid zone, where clothes are only an incumbrance and nature lavishly supplies plenteous stores of fruits and vegetables, the chief objects of desire will not be food and clothing, but ornaments, implements, and weapons. Hence we find amongst the inhabitants of such regions in especial strength that passion for personal adornment, which is one of the most powerful and primitive instincts of the human race. Shells have from very remote times formed one of the most simple forms of adornment in all parts of the world. Shells which once perhaps formed the necklace of some beauty of the neolithic age are found with the remains of the cave men of Auvergne. Strings of cowries under their various names of

changos, zimbis, bonges, or porcelain shells are both durable, universally esteemed, and portable, and therefore suited to form a medium of exchange, and as such they are employed in the East Indies, Siam, and on the whole East and West coasts of Africa, while on the tropical coasts they serve the purposes of small change, being collected on the shores of the maldive and Laccadive islands and exported for that object. The relative value varies slightly according to their abundance or scarcity. In India the usual ratio was about 5,000 to the rupee. Marco Polo found the cowry in use in the province of Yunnam. He says, "In Carajan gold is so abundant that they give one Saggio of gold for six of the same weight of silver. And for small change they use the porcelain shell. These are not found in the country but are brought from India." How ancient is their use in Asia is shown by the fact that Layard found cowries in the ruins of Nineveh.

In Queen Charlotte Islands the dentalium shell was recognized as a medium of exchange by most of the coast tribes, but not so much as a medium of exchange for themselves as for barter with the Indians of the interior.

Passing to the islands of the Pacific we shall find shell money playing an important part among the primitive peoples, such as those who inhabit New Ireland, New Britain, the Pelew, and the Caroline groups. It will suffice for our purpose to describe the form in which it is employed in New Britain. Mr. Powell tells us that the native money in New Britain consists of small cowry shells strung on strips of cane. (In Duke of York Island it is called Dewarra.) It is measured in lengths, the first length being from hand to hand across the chest with arms extended, second length from the center of the breast to the hand of one arm extended, the third from the shoulder to the tip of the fingers along the arm, fourth from the elbow to the tip of the fingers, fifth from the wrist to the tip of the fingers, sixth finger lengths. Fish are generally bought by the length in Dewarra unless they are too small. A large pig will cost from 30 to 40 lengths of the first measure (fathom) and a small one 10 lengths. The Dewarra is made up for convenience in coils of 100 fathoms or first lengths; sometimes as many as 600 fathoms are coiled together, but not often, as it would be too bulky to remove quickly in case of invasion or war, when the women carry it away to hide. These coils are very neatly covered with wickerwork like the bottoms of our cane chairs.

At Moko and Utuan they use another kind of money as well as this, the other being a little bivalve shell, through which they bore a hole and string it on pieces of native-made twine. It is also chipped all round until it is a quarter of an inch in diameter and then smoothed down into even discs with sand and pumice. Here we find strings of shells, which undoubtedly in the first instance were used for personal adornment, converted into a true currency. The simple savages, whose possessions were exceedingly few and scanty, equated their fish to strings of shells which formed their only ornament, and when they got a more valuable possession in the pig, they quickly learned to appraise that animal in shell worth, just as the North American Indians learned to estimate the horse in *Wampum*.

Instead of shells the natives of Fiji are said to have employed whales' teeth as currency, red teeth (which are still highly prized) standing to white ones somewhat in the ratio of sovereigns to shillings with us.

Passing on to the mainland of Asia we shall find that the Chinese, who in the course of ages have developed a bronze coinage of their own apart from the influences of the Mediterranean people, had in early times an elaborate system of shell money. Cowries appear in the *Ya-King*, the oldest Chinese book, 100,000 dead shellfishes being an equivalent for riches. Tortoise of various kinds and sizes was used for the greater values which would have required too many cowries. Tortoise shell is still elegantly used to express coin. Several kinds of *Cypraea* were used, including the purple shell, two or three inches long; all the shells except the small ones were employed in pairs. A writer of the second century B.C. speaks of the purple shell as ranking next after the sea tortoise shells, measuring 1 foot 6 inches, which could only be procured in Cochin China and Annam, where they were used to make pots, basins, and other valuable objects. So attached were the Chinese to these primitive coins that the usurper Wangmang restored a shell currency of five kinds, tortoise shell being the highest. From this time we hear no more of cowries in China Proper, but they left traces of themselves in the small copper coins shaped like a small *Cypraea*, called Dragon's eye or Ant coins. It is doubtless to a similar survival that we owe those curious silver coins made in the shape of shells which come from the north of Burmah and of which there are several specimens in the British Museum. They are about the size of a cowry, and doubtless served as a higher unit in a currency of which the lower units were formed by real shells.

Powers writes of the Karoks and other tribes of California: "For money they make use of the red scalps of woodpeckers, which rate at $2.50 to $5.00 a piece, and of the dentalium shell, of which they grind off the tip, and string it on strings. The strings are usually about as long as a man's arm. It is called *al-li-ko-chik* (in Yarok this signifies literally Indian money) not only on the Klamath but from Crescent City to Eel River, though the tribes using it speak several different languages." Again he writes: "Some of the young bloods array their Dulcineas for the dance with lavish adornments, hanging on their dress 30, 40, or 50 dollars worth of dimes, quarter-dollars, and half-dollars arranged in strings."

In 685 B.C. in parts of China pearls and gems, gold, knives, and cloth were the money, and under the Shou dynasty (1100 B.C.) we understand from ancient commentaries that the gold circulated in little cubes of a square inch, and the copper in round, tongue-like plates by the *tchin tchu*, while the silk cloth 2 feet 2 inches wide in rolls of 40 feet formed a *piece*.

The Chinese likewise used hoes as money, just as we shall find the wild people of Annam doing at the present hour. But in the course of time the hoe became a true currency, and little hoes were employed as coins in some parts of China. In Marco Polo's time cowries were in full use, as in the province of Yunnam.

On the borders of China and Tibet we may still find a state of things not far removed from that existing in the China of 2,000 years ago. The Tibetans, who in recent years employ Indian rupees, for purposes of small change cut up these coins into little pieces, which are weighed by the careful Chinese, but the Tibetans do not seem to use the scale, and roughly judge of the value of a piece of silver. Tea, moreover, and beads of turquoise are largely used as a means of payment instead of metal.

Among the fishermen who dwelt along the shores of the Indian Ocean, from the Persian Gulf to the southern shores of Hindustan, Ceylon, and the Maldive Islands, it would appear that the fishhook, to them the most important of all implements, passed as currency. In the course of time it became a true money, just as did the hoe in China.

Advancing westward we find the Ossetes of the Caucasus at the present moment employ the cow as their unit of value, the prices of all commodities being stated as one, two, three, or four cows, or even at one-tenth or one-hundredth of the value of a cow. The ox is

worth two cows, and the cow is worth ten sheep. This people regulate compensation for wounds thus: they measure the length of the wound in barley corns, and for every barley corn which it measures a cow has to be paid. We have little doubt that over all Hither Asia the same method of employing the cow as the principal unit of value obtained. It is that which we found among the Greeks of the Homeric poems, who were in full contact with Northern Asia Minor, and was almost certainly that of the Semites who dealt in the South. Just as we find the buffalo, and the pots, bronze platters, arrows, lances, and hoes standing side by side in well-defined mutual relation among the Bahnars of Cochin China, so we find in Homer that whilst the cow is the principal unit, the slave is employed as an occasional higher unit, and the kettle (*lebes*), the pot (*tripous*), the ax and the half-ax, hides, raw copper, and pig iron stand beside the cow as multiples or sub-multiples. When Ajax and Idomeneus make a bet on the issue of the chariot race, the proposed wager is a pot or a kettle, whilst from another passage we learn that the usual prizes given at the funeral games of a chieftain were female slaves and pots (tripods). Gold and silver were early employed by the people of Northern Europe in the form of rings.

38. CATTLE AS MONEY[1]

By HOMER

Then Peleus' son ordained straightway the prizes for a third contest, offering them to the Danaans, for the grievous wrestling match: for the winner a great tripod for standing on the fire, prized by the Achaians among them at twelve oxen's worth; and for the loser he brought a woman into their midst, skilled in manifold work, and they prized her at four oxen.

39. EARLY CURRENCY OF THE AMERICAN COLONIES[2]

By HORACE WHITE

The first settlers of New England found wampumpeage, sometimes called wampum and sometimes peage, in use among the aborigines as an article of adornment and a medium of exchange. It consisted of beads made from the inner whorls of certain shells found

[1] *Iliad*, book xxiii.

[2] Adapted from *Money and Banking*, pp. 3–9. (Ginn & Co., 1895.)

in sea water. The beads were polished and strung together in belts or sashes. They were of two colors, black and white, the black being double the value of the white. The early settlers of New England, finding that the fur trade with the Indians could be carried on with wampum, easily fell into the habit of using it as money. It was practically redeemable in beaver skins, which were in constant demand in Europe. The unit of wampum money was the fathom, consisting of 360 white beads worth six pence the fathom. In 1648 Connecticut decreed that wampum should be "strung suitably and not small and great uncomely and disorderly mixt as formerly it hath been." Four white beads passed as the equivalent of a penny in Connecticut, although six were usually required in Massachusetts and sometimes eight. In the latter colony wampum was at first made legally receivable for debts for the amount of 12*d.* only. In 1641 the limit was raised to £10, but only for two years. It was then reduced to 40*s.* It was not receivable for taxes in Massachusetts. The use of wampum money extended southward as far as Virginia.

The decline of the beaver trade brought wampum money into disrepute. When it ceased to be exchangeable in large sums for an article of international trade the basis of its value was gone. Moreover it was extensively counterfeited, and the white beads were turned into the more valuable black ones by dyeing. Nevertheless it lingered in the currency of the colonies as small change till the early years of the eighteenth century. While it was in use it fluctuated greatly in value.

The first General Assembly of Virginia met at Jamestown July 31, 1619, and the first law passed was one fixing the price of tobacco "at three shillings the beste, and the second sorte at 19*d.* the pounde." Tobacco was already the local currency. In 1642 an act was passed forbidding the making of contracts payable in money, thus virtually making tobacco the sole currency. The act of 1642 was repealed in 1656, but nearly all the trading in the province continued to be done with tobacco as the medium of exchange.

In 1628 the price of tobacco in silver had been 3*s.* 6*d.* per pound in Virginia. The cultivation increased so rapidly that in 1631 the price had fallen to 6*d.* In order to raise the price, steps were taken to restrict the amount grown and to improve the quality. The right to cultivate tobacco was restricted to 1,500 plants per poll. Carpenters and other mechanics were not allowed to plant tobacco "or to do any other work in the ground." These measures were ineffective.

The price continued to fall. In 1639 it was only 3*d*. It was now enacted that half of the good and all of the bad should be destroyed, and that thereafter all creditors should accept 40 pounds for 100; that the crop of 1640 should not be sold for less than 12*d*., nor that in 1641 for less than 2*s*. per pound, under penalty of forfeiture of the whole crop. This law was ineffectual as the previous ones had been, but it caused much injustice between debtors and creditors by impairing the obligation of existing contracts. In 1645 tobacco was worth only 1½*d*. and in 1665 only 1*d*. per pound.

In the year 1666 a treaty was negotiated and ratified between the colonies of Maryland, Virginia, and Carolina, to stop planting tobacco for one year in order to raise the price. This temporary suspension of planting made necessary some other mode of paying debts. It was accordingly enacted that both public dues and private debts falling due "in the vacant year from planting" might be paid in country produce at specified rates.

In 1683 an extraordinary series of occurrences grew out of the low price of tobacco. Many people signed petitions for a cessation of planting for one year for the purpose of increasing the price. As the request was not granted, they banded themselves together and went through the country destroying tobacco plants wherever found. The evil reached such proportions that in April, 1684, the Assembly passed a law declaring that these malefactors had passed beyond the bounds of riot, and that their aim was the subversion of the government. It was enacted that if any persons, to the number of eight or more, should go about destroying tobacco plants, they should be adjudged traitors and suffer death.

In 1727 tobacco notes were legalized. These were in the nature of certificates of deposit in government warehouses issued by official inspectors. They were declared by law current and payable for all tobacco debts within the warehouse district where they were issued. They supply an early example of the distinction between money on the one hand, and government notes, or bank notes, on the other. The tobacco in the warehouses was the real medium of exchange. The tobacco notes were orders payable to bearer for the delivery of this money. They were redeemable in tobacco of a particular grade, but not in any specified lots. Counterfeiting the notes was made a felony. In 1734 another variety of currency called "crop notes" was introduced. These were issued for particular casks of tobacco, each cask being branded and the marks specified on the notes.

The circulating medium of the New England colonies was quite as fantastic as that of Virginia. Merchantable beaver was legally receivable for debts at 10*s*. per pound. In 1631 the General Court of Massachusetts ordered that corn should pass for the payment of all debts at the price it was usually sold for, unless money or beaver skins were expressly stipulated. In other words, a debt payable in pounds, shillings, and pence might be paid at the debtor's option in any one of three ways: in corn at the market price, in beaver at 10*s*. per pound, or in the metallic money of England. For more than half a century this order continued in force and operation, other things being added to the list from time to time.

In 1675, during King Philip's war, the need of metallic money for public use was so great that a deduction of 50 per cent was offered on all taxes so paid.

The first local currency of New Netherlands was wampum, but it was subordinate to the silver coinage of the mother-country; that is, it was reckoned in terms of that coinage as fixed by the Dutch West India Company from time to time. It was first fixed at six white beads for a stiver. Wampum was not made in the province, but was imported from the east end of Long Island, the principal seat of production. It is mentioned in a letter from the Patrons of New Netherlands to the States General in June, 1634, as "being in a manner the currency of the country with which the produce of the country is paid for," the produce of the country being furs.

Beaver soon became current here, as in New England, and for the same reason, its currency value being fixed by the company at 8 florins per skin. As 6 wampum beads were equal to 1 stiver and 20 stivers to 1 florin, and 8 florins to 1 skin, the ratio of wampum to beaver was 960 to 1. The market ratio did not coincide with the legal ratio very long. Nor was the legal ratio of either wampum or beaver to silver maintained.

In 1719 the Assembly of South Carolina made rice receivable for taxes, "to be delivered in good barrels upon the bay in Charlestown." In the following year a tax of 1,200,000 lb. of rice was levied, and commissioners were appointed to issue rice orders to public creditors, in anticipation of collection, at the rate of 30*s*. per 100 lb. in the following form: "This order entitles the bearer to one hundred weight of well-cleaned merchantable rice to be paid to the commissioners that receive the tax on the second Tuesday in March, 1723." Rice orders were receivable for all purposes, and counterfeiting was made felony without benefit of clergy.

In eastern Tennessee and Kentucky, early in the nineteenth century, deerskins and raccoon skins were receivable for taxes and served the purpose of currency.

When California was first invaded by gold-seekers there were a few Mexican coins in circulation there, not nearly sufficient to answer the needs of the growing community. The immigrants brought more or less metallic money with them. The smaller coins were those of many different countries, chiefly Spanish. For want of sufficient coins, the first trading was done largely with gold dust, sometimes by weighing it in scales, and sometimes by guesswork. A "pinch" of gold dust about as large as a pinch of snuff had a current value and was common measure in places where there was no means of weighing. At a public meeting in San Francisco, September 9, 1848, it was resolved by unanimous vote that $16 per ounce was a fair price for placer gold. This rate was at once adopted in all business transactions. By and by private coiners of gold came into the field.

C. The Use of Metals as Money

40. EVOLUTION OF THE PRECIOUS METALS[1]

By KARL MENGER

The reason why the *precious metals* had become the generally current medium of exchange among here and there a nation prior to its appearance in history, and in the sequel among all peoples of advanced economic civilization, is because their salableness is far and away superior to that of all other commodities, and at the same time because they are found to be specifically qualified for the concomitant and subsidiary functions of money.

There is no center of population which has not in the very beginnings of civilization come keenly to desire and eagerly to covet the precious metals—in primitive times for their utility and peculiar beauty as in themselves ornamental, subsequently as the choicest materials for plastic and architectural decoration, and especially for ornaments and vessels of every kind. In spite of their natural scarcity, they are well distributed geographically, and, in proportion to most other metals, are easy to extract and elaborate. Further, the ratio of the available quantity of the precious metals to the total requirement is so small that the number of those whose need of them

[1] Adapted from "The Origin of Money," *Economic Journal*, II (1892), 252–55.

is unsupplied, or at least insufficiently supplied, together with extent of this unsupplied need, is always relatively large—larger more or less than in the case of other more important though more abundantly available commodities. In no national economy which has advanced beyond the first stages of development are there any commodities the salableness of which is so little restricted in such a number of respects—personally, quantitatively, spatially, and temporally—as the precious metals. It cannot be doubted that, long before they had become the generally acknowledged media of exchange, they were, amongst very many peoples, meeting a positive and effective demand at all times and places, and practically in any quantity that found its way to market.

Under such circumstances it became the leading idea in the minds of the more intelligent bargainers, and then, as the situation came to be more generally understood, in the minds of everyone, that the stock of goods destined to be exchanged for other goods must in the first instance be laid out in precious metals, or must be converted into them, even if the agent in question did not directly need them, or had already supplied his wants in that direction. But in and by this function, the precious metals are already constituted generally current media of exchange. In other words, they hereby function as commodities for which everyone seeks to exchange his market goods.

41. SUPERIORITY OF GOLD AND SILVER[1]

BY W. STANLEY JEVONS

a) Silver.—I need hardly say that silver is distinguished by its exquisite white lustre, which is not rivalled by that of any other pure metal. Certain alloys, indeed, such as speculum metal, or Britannia metal, have been made of almost equal lustre, but they are either brittle, or so soft as not to give the metallic ring of silver. When much exposed to the air silver tarnishes by the formation of a black film of silver sulphide; but this forms no obstacle to its use as currency, since the film is always very thin, and its peculiar black colour even assists in distinguishing the pure metal from counterfeit. When suitably alloyed, silver is sufficiently hard to stand much wear, and next after gold it is the most malleable and impressible of all the metals.

[1] Adapted from *Money and the Mechanism of Exchange* (1875), pp. 45–47. (D. Appleton & Co.)

A coin or other object made of silver may be known by the following marks: (1) a fine pure white lustre, where newly rubbed or scraped; (2) a blackish tint where the surface has long been exposed to the air; (3) a moderate specific gravity; (4) a good metallic ring when thrown down; (5) considerable hardness; (6) strong nitric acid dissolves silver, and the solution turns black if exposed to light.

Silver has been coined, it need hardly be said, in all ages since the first invention of the art, and its value relatively to gold and copper suits it for taking the middle place in a monetary system. Its value too remains very stable for periods of fifty or a hundred years, because a vast stock of the metal is kept in the form of plate, watches, jewellery, and ornaments of various kinds, in addition to money, so that a variation in the supply for a few years cannot make any appreciable change in the total stock. Productive silver mines exist in almost all parts of the world, and wherever lead is produced a small but steady yield of silver is obtained from it by the Pattinson method of extraction.

b) *Gold.*—Silver is beautiful, yet gold is even more beautiful, and presents indeed a combination of useful and striking properties quite without parallel among known substances. To a rich and brilliant yellow colour, which can only be adequately described as golden, it joins astonishing malleability and a very high specific gravity, exceeded only by that of platinum and a few of the rarest or almost unknown metals. We can usually ascertain whether a coin consists of gold or not by looking for three characteristic marks: (1) the brilliant yellow colour; (2) the high specific gravity; (3) the metallic ring of the coin when thrown down, which will prove the absence of lead or platinum in the interior of the coin.

If there remain any doubt about a metal being gold, we have only to appeal to its solubility. Gold is remarkable for its freedom from corrosion or solution, being quite unaffected and untarnished after exposure for any length of time to dry, or moist, or impure air, and being also insoluble in all the simple acids. Strong nitric acid will rapidly attack any coloured counterfeit metal, but will not touch standard gold, or will, at the most, feebly dissolve the copper and silver alloyed with it.

In almost all respects gold is perfectly suited for coining. When quite pure, indeed, it is almost as soft as tin, but when alloyed with one-tenth or one-twelfth part of copper, becomes sufficiently hard to resist wear and tear, and to give a good metallic ring; yet it remains

perfectly malleable and takes a fine impression. Its melting-point is moderately high, and yet there is no perceptible oxidation or volatilization of the metal at the highest temperature which can be produced in a furnace. Thus, old coin and fragments of the metal can be melted into bullion at a very slight loss, and at a cost of not more than one halfpenny per ounce troy, or little more than one-twentieth of 1 per cent.

42. A MONETARY CHRONOLOGY[1]

The main events in the history of money may be summarized as follows. The legislative acts in various countries leading to the adoption of a single gold standard are omitted.

B.C.

1860 Abraham's purchase of land for 400 shekels of silver, weighed out as "current money with the merchant," is an early illustration of the use of silver by weight as money long before the introduction of coinage.

1594 Cadmus mined gold in Thrace.

1400 Gold and silver used as money in Egypt, India, and Arabia.

1100 Money of China consisted of cubes of gold, round plates of copper, and rolls of silk cloth.

800 Homeric poems show no trace of coined money. There were, however, two units of value: (1) the cow; (2) the talent—supposed to be a certain weight of gold.

500 Silver coins were current in Thrace and Macedon about this time.

480–206 Silver mines in Spain were worked by the Carthaginians.

450 Herodotus stated the ratio of silver to gold to be 13 to 1 in Greece.

400 Dionysius called tin equivalent to silver; his was probably the earliest instance of debasement of coinage and of a legal-tender act to force base coin into circulation.

60 Ratio of silver to gold in Rome, 9 to 1.

A.D.

14 Amount of precious metals in the civilized world estimated by Jacob to have been $1,800,000,000. The drain to the East began at this period.

800 Total supply of precious metals estimated by Jacob to have been reduced by abrasion to about $165,000,000. At this time the Moors reopened the mines in Spain. Mines discovered in Saxony, Harz Mountains, and in Austria. Supply of precious metals remained about stationary until the discovery of America.

[1] Adapted from *Sound Currency*, VI (1899), 33–47.

A.D.

1252 Gold was minted in Florence, Italy—it practically having gone out of use with the fall of the Roman Empire.

1257 Gold first coined in England. The first pieces weighed as much as two silver pennies, and were ordered to pass for 20 pence.

1295 Coinage of gold in France first became important, though in 1265 some was being coined and as far back as 1180 gold coins were minted, probably for use as medals or decorations.

1328 Gold first coined in Germany about this year, the first pieces being in imitation of the florin of Florence, which weighed 53 grains.

1344 The King of England proclaimed the ratio of silver to gold to be 12.61 to 1. About this time gold coinage first became of monetary importance in England.

1474 Commerical ratio of silver to gold in England was 11.15 to 1; in Germany, 11.12; in France, 11; in Italy, 10.58; in Spain, 9.82.

1492 Discovery of America by Columbus and the finding of gold in considerable quantity among the natives of the islands he reached.

1522 The first silver sent to Europe from the mines of Mexico was obtained from Tasco, discovered by the Spaniards this year. These mines, together with those of Pachuca, are considered the oldest in Mexico, some of them having been long worked by the Aztecs at the time of the arrival of the Spaniards.

1532 Conquest of Peru by Francisco Pizarro. Its mines were soon supplying a large portion of the world's silver.

1545 Discovery of the famous silver mines of Potosi, Bolivia.

1548 First discovery of silver at Guanajuato, Mexico.

1571 The Huancevalica quicksilver mines in Peru first began to produce in noteworthy quantity. This was an important event, as an abundant supply of mercury for the amalgamation of Potosi ore was thus obtained.

1596–1614 Coinage system established in Japan. Gold, silver, and copper were coined.

1666 Mints of England opened to the free coinage of gold and silver in unlimited quantities at the ratio of 15 to 1.

1762 Discovery of the great silver bonanza of Real del Monte, Mexico.

1774 The first gold placer mines in the Ural Mountains were discovered this year.

1785 France ordered a recoinage of her gold and placed the ratio at 15½ to 1. This ratio was affirmed by statute of 1803.

1792 April 2, establishment of the United States mint with free and gratuitous coinage of both gold and silver at the ratio of 15 to 1.

1792 The famous bonanza at Sombrerete, Zacatecas, Mexico, was discovered this year.

A.D.

1793 Mules and horses were used in Mexico, for the first time, for mixing the pulp, mercury, and chemicals in the patio process, saving 75 per cent in the cost of this branch of working; prior to this time, the operation had been performed entirely by human labor.

1829 Discovery of gold mines in Georgia; first mining excitement in the United States.

1830 Discovery of the placers of the Altai Mountains, Siberia.

1840 Increased production of gold in Russia.

1843 The Augustin process of working silver ores was introduced at the Gottesbelohnung Hütten, near Mansfield, Germany, and later in the year at the Freiberg works.

1848 On January 19, Marshall discovered gold at Coloma, California. Beginning of the gold era.

1849 Discovery of gold in Gold Cañon, Nevada; this eventually led to the discovery of the Comstock lode.

1851 Discovery of gold in Australia by Hargreaves.

1853 Maximum production of gold reached in California—$65,000,000.

1857 Discovery of gold in New Zealand.

1859 The Comstock silver lode, Nevada, was discovered.

1859 Discovery of gold in the Fraser River region, British Columbia. Pike's Peak excitement; discovery of gold placers in Gilpin County, Colorado, in California Gulch, and at Breckenridge.

1868 Discovery of gold in Western Australia, but it was not until 1887 that any diggings of importance were found.

1869 Discovery of the important silver-lead deposits of Eureka, Nevada. The American practice of lead smelting has been developed chiefly from the methods adopted in this district.

1869 Sutro tunnel to open the Comstock lode was commenced October 19.

1873 Discovery of the "Big Bonanza" in the Consolidated California and Virginia mines on the Comstock lode.

1874 A year of great excitement on the Comstock lode, the "Big Bonanza" beginning to yield largely, while another bonanza was discovered in the Ophir mine.

1878 Great excitement at Leadville, Colorado, where many new discoveries were made.

1884 Discovery of gold in DeKaap district of the Transvaal, South Africa.

1885–90 Numerous discoveries of gold in South Africa, West Australia, and Colorado.

1891 The perfecting of the cyanide process. This greatly reduced the cost of extracting ores, making possible the continued working of old mines and of many low-grade deposits. It is mainly responsible for the enormous increase of gold production in the present generation.

1897 Klondike gold fields discovered.

43. THE BEGINNINGS OF EUROPEAN MONETARY HISTORY[1]

By W. A. SHAW

The monetary history of Europe begins in the thirteenth century, and in the Italian peninsula. Its starting-point is the era of the reintroduction of gold into the coinages of the Western nations, and is definitely marked for us by the minting of the gold florin of Florence in 1252. For all practical purposes gold had gone out of use since the seventh century, and after the submersion of the Roman Empire; and the currencies of the nations of mediaeval Europe rested on a silver basis entirely.

The explanation of the reintroduction and recoinage of gold is to be found in the history of the Crusades and of the commercial growth of the petty independent states which sprang from the political confusion of Italy. No sooner had they achieved each their little autonomous existence than they threw themselves with feverish activity into the development of trade with the East. Florence and Venice, Pisa and Genoa, led the way and reaped the fruits; and it was in her most flourishing time, when she had conquered her rivals, Pisa and Siena, and was enjoying a prosperous peace and active trade, that Florence, at the instance of the chief of her merchants, resolved on the coining of the gold florin.

The mere idea of such a gold coinage could only be derived from the East, from Byzantium. But it is a curious fact that the importation of it should be due in the first place to the Crusades. Frederick II of Italy was elected Emperor of the Holy Roman Empire in 1212. Sixteen years later he headed the Fifth Crusade, and the gold coin (Augustale) which he issued sometime between his return from that crusade and his death probably commemorates his wish to rival the appearance of opulence of the Eastern court. This Sicilian coin is the direct ancestor of the florin of Florence, and to it would fitly belong the honor of leading in a new era, were it not that the superior beauty gave it universal currency and reputation and extinguished the memory of its predecessor.

Two conditions were essential to bringing about so momentous a revolution as this, however little the mind of contemporaries may have known it as such. In the first place, the foreign trade of the Italian republics must have become so extensive as to demand a currency medium of higher denomination than silver; and secondly, that trade must have developed in such directions as to tap gold-using

[1] Adapted from *The History of Currency*, pp. 1–14. (G. P. Putnam's Sons, 1896.)

or gold-bearing regions in order to supply the Italian mints. It is a curious fact that both these conditions were realized through the instrumentality of the Crusades. The quickening effect of these vast movements on the trade of the Mediterranean is well known, but their influence in the second direction has not hitherto been pointed out. In the Fourth Crusade Venice lent the force which captured Byzantium (1203), and when, by her arms, Baldwin, Count of Flanders, had been seated on the Eastern throne, Venice reaped her reward in three-eighths of the territories of the Eastern Empire. She received Peloponnesus and a chain of islands in the Aegean, and by the hold she had on Constantinople secured the virtual control of the Black Sea. In its turn the control of the Black Sea brought with it the monopoly of the overland trade with India.

At one and the same moment, therefore, Venice acquired possession of a huge treasure of gold wrested from the conquered city, and of the then only gold-yielding districts—the Crimea—and of an intercolonial trade, demanding a more enhanced currency medium. The result of such a combination of circumstances was irresistible. During the continuance of the "Latin Empire" at Byzantium, Venice and her sister-state were practically the only merchants of Europe.

The characteristics of this early period are perfectly well defined, and repeat themselves with almost faithful and exact similarity of recurrence in the several states comprising the Europe of that date. In brief, such characteristics were those of (1) a period of commercial expanse, necessitating an increasing currency and advancing prices; (2) a period of stationary production of the precious metals, necessitating a struggle among the various states for the possession of those metals; (3) a period of endless change in the ratio between gold and silver, necessitating the continual revision of the rate of exchange. Broadly speaking, those characteristics fall into two classes, according as they relate to (1) the natural movement of prices, i.e., having regard merely to the supply of the precious metals; (2) to the unnatural struggle for the metals themselves—for the material for currency —due to international rivalry and bad or crafty legislation.

With regard to the former of these, the period was distinctly one of insufficient and relatively diminishing production of the metals. During these two centuries, 1300–1500, the main sources of the derivation of gold were the Eastern trade and the finds on the eastern shores and northern interior of Africa. The chief supply of silver came from the mines in Germany. These latter in Hungary, Transylvania, Saxony, and Bohemia were of such importance and activity,

in the fifteenth century and toward the time of the discovery of America, as partially to keep pace with the general trade expanse of the time, thereby helping to arrest a fall of prices that would have been absolutely disastrous to the civilization of Europe.

44. PRODUCTION OF GOLD AND SILVER IN THE WORLD SINCE THE DISCOVERY OF AMERICA[1]

Period	Gold		Silver	
	Annual Average for Period		Annual Average for Period	
	Fine Ounces	Coining Value	Fine Ounces	Coining Value in Standard Silver Dollars
1493–1520.....	186,470	$ 3,855,000	1,511,050	$ 1,954,000
1521–1544.....	230,194	4,759,000	2,899,930	3,740,000
1545–1560.....	273,596	3,656,000	10,017,940	12,952,000
1561–1580.....	219,906	4,546,000	9,628,925	12,450,000
1581–1600.....	237,267	4,905,000	13,467,635	17,413,000
1601–1620.....	273,918	5,662,000	13,596,235	17,579,000
1621–1640.....	266,845	5,516,000	12,654,240	16,361,000
1641–1660.....	281,995	5,828,000	11,776,545	15,226,000
1661–1680.....	297,709	6,154,000	10,834,550	14,008,000
1681–1700.....	346,095	7,154,000	10,992,085	14,212,000
1701–1720.....	412,163	8,520,000	11,432,540	14,781,000
1721–1740.....	613,422	12,581,000	13,863,080	17,924,000
1741–1760.....	791,211	16,356,000	17,140,612	22,162,000
1761–1780.....	665,666	13,761,000	20,985,591	27,133,000
1781–1800.....	571,948	11,823,000	28,261,779	36,540,000
1801–1810.....	571,563	11,815,000	28,746,922	37,168,000
1811–1820.....	367,957	7,606,000	17,385,755	22,479,000
1821–1830.....	457,044	9,448,000	14,807,004	19,144,000
1831–1840.....	652,291	13,484,000	19,175,867	24,793,000
1841–1850.....	1,760,502	36,393,000	25,090,842	32,440,000
1851–1855.....	6,410,324	132,513,000	28,488,597	36,824,000
1856–1860.....	6,485,262	134,083,000	29,095,428	37,618,000
1861–1865.....	5,949,582	122,989,000	35,401,972	45,772,000
1866–1870.....	6,270,086	129,614,000	43,051,583	55,663,000
1871–1875.....	5,591,014	115,577,000	63,317,014	81,864,000
1876–1880.....	5,543,110	114,586,000	78,775,602	101,851,000
1881–1885.....	4,794,755	99,116,000	92,003,944	118,955,000
1886–1890.....	5,461,282	112,895,000	108,911,431	140,815,000
1891–1895.....	7,882,565	162,947,000	157,581,331	203,742,000
1896–1900.....	12,446,939	257,301,100	165,693,304	214,229,700
1901–1905.....	15,606,730	322,619,800	167,995,408	217,206,200
1906.....	19,471,080	402,503,000	165,054,497	213,403,800
1907.....	19,977,260	412,966,600	184,206,984	238,166,600
1908.....	21,422,244	442,836,900	203,131,404	262,634,500
1909.....	21,965,111	454,059,100	212,149,023	274,293,700
1910.....	22,022,180	455,239,100	221,715,673	286,662,700
1911.....	22,348,313	461,939,700	226,192,923	292,451,500
1912.....	22,549,335	466,136,100	202,178,314	261,402,300
Total.....	714,747,822	$14,775,110,000	11,083,136,909	$14,329,712,400

[1] From *Annual Report of Director of the Mint*, 1914, p. 268.

D. Principles of Coinage

45. INVENTION OF COINAGE[1]

BY HENRY V. POOR

Coinage is of comparatively recent origin. No traces of it have been found among the remains of Assyrian or Egyptian art; and Egyptian civilization, running through periods far greater than those which measure the life of subsequent nations, had begun to decline before coinage was used. Among all the ancient nations, including the Hebrews and Phoenicians, as well as the Assyrians and Egyptians, the precious metals passed by weight. When Abraham weighed out at Ephron the silver which he had named in the audience of the sons of Heth—"four hundred shekels of silver, current money with the merchant"—he undoubtedly used scales and denominations of weight common to the whole East. The language indicates as thorough a familiarity with the use of money as does that used in financial newspaper articles of the present day. So Joseph gave to Benjamin "three hundred pieces of silver." These pieces were undoubtedly of very nearly equal weight—consequently of equal value. The word *piece* had a significance precisely similar to that which we attach to the word dollar.

The invention of coinage has been ascribed to Pheidon, who reigned about 750 B.C., in the island of Aegina, a dependency of Argos, and at that time one of the greatest commercial emporiums of Greece. Previous to its invention, the form in which the precious metals were used was that of pins, or wires, silver being the metal chiefly employed. Of these, a certain number made a conventional handful, or *drachma*. This form was gradually exchanged for that of solid pieces, or wedges, which may be considered as a step toward coinage.

Jevons says: "The mode in which the invention happened is sufficiently evident. Seals were familiarly employed in very early times, as we learn from the Egyptian paintings or the stamped bricks of Nineveh. Being employed to signify possession, or to ratify contracts, they came to indicate authority. When a ruler first undertook to certify the weights of pieces of metal, he naturally employed his seal to make the fact known, just as, at Goldsmith's Hall, a small punch was used to certify the fineness of plate. In the earliest forms of coinage there were no attempts at so fashioning the metal that its

[1] Adapted from *Money, Its Laws and History*, p. 11. (H. V. and H. W. Poor, 1877.)

weight could not be altered without destroying the stamp or design The earliest coins struck, both in Lydia and in the Peloponnesus were stamped on one side only."[1]

46. FORM, DESIGN, AND SIZE OF COINS[2]

BY W. STANLEY JEVONS

From time to time coins have been manufactured in very many forms, although circular coins vastly predominate in number. Among the innumerable issues of the German states may be found octagonal and hexagonal coins. A singular square coin, with a circular impress in the centre, was issued from Salzburg by Rudbert in 1513. Siege-pieces have been issued in England and elsewhere in the form of squares, lozenges, etc. Some of the most extraordinary specimens of money ever used are the large plates of pure copper which circulated in Sweden in the eighteenth century. These were about three-eighths of an inch in thickness, and varied in size, the half-daler being $3\frac{1}{2}$ inches square, and the two-daler piece as much as $7\frac{1}{2}$ inches square and $3\frac{1}{2}$ pounds in weight. As the whole surface could not be covered with a design, a circular impress was struck near to each corner, and one in the centre, so as to render alteration as difficult as possible.

Among Oriental nations the shapes of coins are still more curious. In Japan, the principal part of the circulation consists of silver *itzibus*, which are oblong, flat pieces of silver, covered on both sides with designs and legends, the characters being partly in relief and partly incised. The smaller silver coins have a similar form. Among the minor Japanese coins are found large, oval, moulded pieces of copper or mixed metal, each with a square hole in the centre. The Chinese *cash* are well known to be round discs of a kind of brass, with a square hole in the centre to allow of their being strung together. The present circulation of China is composed of the so-called Sycee silver, which consists of small shoe-shaped ingots, assayed and stamped, according to some accounts, by the government. The coins of Formosa are similar, except that they are much larger and thicker. All the copper and base metal coins of China, Japan, and Formosa are distinguished by a broad, flat rim, and they have characters in relief upon a sunk

[1] This paragraph is taken from *Money and the Mechanism of Exchange*, p. 55. 1875. (D. Appleton & Co.)

[2] Adapted from *Money and the Mechanism of Exchange* (1875), pp. 55–62. (D. Appleton & Co.)

ground, somewhat in the manner of Boulton and Watt's copper pence. They are manufactured by moulding the metal, and then filing the protuberant parts smooth. Such coins stand wear and preserve their design better than European coins, but they are easily counterfeited. The most singular of all coins are the scimiter-shaped pieces formerly circulated in Persia.

It is a matter of considerable importance to devise the best possible form for coins, and the best mode of striking them. The use of money creates, as it were, an artificial crime of false coining, and so great is the temptation to engage in this illicit art that no penalty is sufficient to repress it, as the experience of two thousand years sufficiently proves. Thousands of persons have suffered death, and all the penalties of treason have been enforced without effect. Ruding is then unquestionably right in saying that our efforts should be directed, not so much to the punishment of the crime, as to its prevention by improvements in the art of coining. We must strike our coins so perfectly that successful imitation or alteration shall be out of the question.

There are four principal objects at which we should aim in deciding upon the exact design for a coin:

1. To prevent counterfeiting.
2. To prevent the fraudulent removal of metal from the coin.
3. To reduce the loss by legitimate wear and tear.
4. To make the coin an artistic and historical monument of the state issuing it and of the people using it.

For the prevention of counterfeiting, our principal resource is to render the mechanical execution of the piece as perfect as possible, and to strike it in a way which can only be accomplished with the aid of elaborate machinery. When all coins were made by casting, the false coiner could work almost as skilfully as the moneyer. Hence, in the Roman Empire, it was difficult to distinguish between true and false coin. Hammered money was a great improvement on moulded money and milled money on hammered money. The introduction of the steam coining-press by Boulton and Watt was the next great improvement, and the knee-joint press of Ulhorn and Thonnelier, now used in nearly all mints, except that on Tower Hill, forms the last advance in the mechanism for striking coin.

The utmost attention ought to be paid to the perfect execution of the milling, legend, or other design impressed upon the edge of modern coins. This serves at once to prevent clipping or tampering

with the coin, and to baffle the skill of the counterfeiter. The coins of ancient nations were issued with rough, unstamped edges, and the first coin marked with a legend on the edge was a silver coin of Charles IX of France, issued in the year 1573.

All the larger coins now issued from the English, and indeed from most other mints, bear a milled or serrated edge, produced by ridges on the internal surface of the collar which holds the coin when being struck between the two dies. These collars are difficult to make, and useless when made except in the coining press, and the counterfeiter cannot imitate the milling by handwork, it being almost impossible to use a file with sufficient regularity.

The French five-franc pieces bear a legend on the edge in raised letters, the words being "Dieu protège la France." Such raised letters are quite beyond the art of the counterfeiter.

Some states have utilized their coins as monuments of important events, such as conquests, jubilees, the accession of monarchs, etc. The German states, especially Prussia, have struck a long series of beautiful coins down to the Krönung's Thaler of 1861, and the Sieges Thaler of 1871. Some of these coins are at once treasured up in cabinets in the manner of medals. If it is possible to conceive literature destroyed, and modern cities and their monuments in ruins and decay, such medallic coins would become the most durable memorials, and the history of the kings of Prussia would be traced out by future numismatists as that of the great dynasties of Bactria has lately been recovered.

47. COINAGE, A GOVERNMENT FUNCTION[1]

BY W. STANLEY JEVONS

Every civilized community requires a supply of well-executed coins, so there arises the question, How shall this money be provided? The coins of each denomination must contain exactly equal weights of fine metal, and must bear the impress proving that they do so. Can we trust to the ordinary competition of manufacturers and traders to keep up a sufficient supply of such coins, just as they supply buttons or pins or needles? Or must we establish a permanent department, under strict legislative control, to secure good coinage?

As almost every opinion finds some advocates, there are not wanting a few who believe that coinage should be left to the free

[1] Adapted from *Money and the Mechanism of Exchange*, pp. 62–64. (D. Appleton & Co., 1875.)

action of competition. Mr. Herbert Spencer advanced the doctrine that, as we trust the grocer to furnish us with pounds of tea, and the baker to send us loaves of bread, so we might trust Heaton and Sons, or some of the other enterprising firms of Birmingham, to supply us with sovereigns and shillings at their own risk and profit. He held that just as people go by preference to the grocer who sells good tea, and to the baker whose loaves are sound and of full weight, so the honest and successful coiner would gain possession of the market, and his money would drive out inferior productions.

Mr. Spencer has, however, overlooked the important law of Gresham, that better money cannot drive out worse. In matters of currency, self-interest acts in the opposite direction to what it does in other affairs, and if coining were left free, those who sold light coins at reduced prices would drive the best trade.

This conclusion is amply confirmed by experience; for at many times and places coins have been issued by private manufacturers, and always with the result of debasing the currency. For a long time the copper currency of England consisted mainly of tradesmen's tokens, which were issued very light in weight and excessive in number. In Mr. Smiles' *Lives of Boulton and Watt* the lower class of manufacturers purchased copper coins to the nominal value of thirty-six shillings for twenty shillings in silver and distributed it to their work-people in wages, so as to make a considerable profit. The multitude of these depreciated pieces in circulation was so great that the magistrates and inhabitants of Stockport held a public meeting, and resolved to take no halfpence in future but those of the Anglesey Company, which were of full weight. This shows, if proof were needed, that the separate action of self-interest was inoperative in keeping bad coin out of circulation, and it is not to be supposed that the public meeting could have had any sufficient effect.

The experience of the United States has also shown that the coining of money cannot safely be left to private enterprises. Private coinage was not forbidden in the United States until 1864, and between 1850 and this date there were numerous private gold manufactories located in the gold-producing regions. As many as sixty specimens of such coins have been preserved by the mint at Philadelphia. These coins were guaranteed to be of the same weight and fineness as government coins, though in fact the five-dollar pieces ranged in value from $4.36 to $5.00. They were of course not counterfeits, and hence they should have passed for their actual worth. They would have

done so if everyone were equipped with accurate scales and the means of testing the fineness, but this was of course out of the question. Traders in general could not distinguish between them, and were hence likely to be cheated, while at the same time sharpers could reap the advantage in handsome profits with little danger of detection. Guaranteed uniformity is an absolute essential with money.

48. THE COINAGE PROCESS AT THE UNITED STATES MINTS[1]

By HORACE WHITE

The successive steps in the making of coins at the United States mints are (1) assaying, (2) refining, (3) alloying, (4) coining. The bullion is first melted in a crucible. While in the molten state it is stirred until thoroughly mixed. It is then allowed to cool in the form of a brick. Small pieces are clipped from two corners of the brick most distant from each other and given to two different assayers to test the fineness of the metal. If their tests do not agree within a certain fraction, the brick is returned to the melting-pot and the process repeated. When the test is satisfactory and the amount of foreign substance is known, the whole of the impurity is removed by chemical means. Then the requisite amount of alloy is added by remelting and mixing, to harden the mass. Thus, to nine pounds of pure gold one pound of copper is added, so that the coins shall be nine-tenths fine.

The bullion is rolled into strips or ribbons a little wider than the coin to be struck. It is then "drawn" in a machine which reduces it to the thickness of the coin. The strips are then passed through another machine, which cuts out of them circular pieces of the proper size, called "blanks." Each blank is examined by an expert both by weighing and by sounding. If one is found too light, or if it does not "ring true," it is returned to the melting-pot. If it is too heavy, the excess of metal is removed by filing.

The blanks are sent to a machine by which a slight rim is raised around the edge of the piece on both sides, so that its weight shall rest on the rim and not on the whole surface of the coin, in order to minimize the abrasion. This process is called "milling." The blanks are then put in a cylindrical case and sent to the coining machine. At each revolution of the machine one blank drops from the bottom of the cylinder, is seized and conveyed to a sunken steel

[1] Adapted from *Money and Banking*, pp. 20–22. (Ginn & Co., 1895.)

bed which contains a die that prints one surface of the coin. This bed has a serrated edge or "collar." Directly above this sunken die is a steel stamp containing a die which prints the other surface of the coin. This stamp descends on the blank underneath with sufficient force to impress upon it the letters and figures of both surfaces of the coin. This pressure also squeezes the coin against the serrated collar, producing an indentation on the edge of the coin, the object of which is to prevent any clandestine removal of metal. If a piece were clipped from the edge, or any portion were removed by filing, the fraud would be detected by the absence or irregularity of the indentations.

49. COINAGE RULES AND REGULATIONS OF THE UNITED STATES[1]

a) RECEIPT OF BULLION

All bullion deposited or purchased at any of the mints or assay offices of the United States shall be weighed in the presence of the depositor or his agent, and the weight shall be verified by the registrar of deposits. If the bullion deposited is found to be of less value than $100; it may be legally refused. If, upon report of the assayer, it is found to be unsuitable for the operations of the mint, it shall be refused.

b) ASSAYING

As soon as the weight of a deposit has been ascertained and recorded the assayer takes at least two samples in sufficient portion for assay and proceeds to test the quality of the metal. The assayer shall insert in the report the fineness of the gold or silver contained in the deposit. If the base is ascertained to be copper suitable for standard metal, he shall so state in his report. He shall also insert in his report the charges to which the deposit is subject.

c) MINT CHARGES

Section 3524, Revised Statutes of the United States, provides that the charges for the various operations on bullion deposited and for the preparation of bars shall be fixed from time to time by the Director of the Mint, with the concurrence of the Secretary of the Treasury, so as to equal, but not exceed, in their judgment, the actual average cost to each mint and assay office of the material, labor, wastage, and use of machinery employed.

[1] From *General Instructions and Regulations in Relation to the Transaction of Business at the Mints and Assay Offices of the United States.*

The following are the principal mint charges:

1. *Melting charge.*—On deposit of bullion a charge of $1 shall be imposed for each 1,000 ounces of bullion or fraction thereof as shown by weight after melting, except in the case of uncurrent United States coin and mint-fine bars, for which no charge is made.

2. *Parting and refining bullion.*—The charges for parting and refining bullion vary with the amount of impurities and base metal. Bullion containing 800 thousandths or more of base metal is not accepted. At the other extreme no charge is made for bullion containing 992 thousandths of gold and upward. The charges on other bullion vary from one-half cent per ounce to four cents per ounce, depending upon the amount of base metals and copper alloy contained. For instance, where bullion contains from 950 to 991¾ thousandths, inclusive, of gold and not more than 30 thousandths base, the charge is 2 cents per ounce. The depositor is given credit for the copper contained in the bullion. There is no charge for parting and refining foreign coins unless they are below standard fineness.

3. *Toughening charge.*—Bullion containing one or more of the following substances, viz., iron, lead, antimony, bismuth, tin, arsenic, zinc, or sulphur, in amounts sufficient to make it impossible to obtain a satisfactory assay, shall, at the discretion of the superintendent, be subject to an additional charge equal to the cost to the Government for remelting and treatment by the deposit melter.

4. *Copper alloy.*—Two cents per ounce for copper required, to be determined by taking one-tenth of the standard weight of gold, except where the base in the deposit is all good copper and the fineness above standard, when the method of determining the number of ounces of copper required shall be by taking the difference between the standard weight and the gross weight of the deposit.

5. *Assays of bullion and plated ware.*—Samples of gold and silver bullion will be assayed at the mints and assay offices at a charge of $2 per sample. In case of plate, or what is known as rolled or filled plate, the charge shall be $4 for each assay; or the assay may be refused, at the option of the assayer.

d) ADVANCES OR PARTIAL PAYMENTS ON DEPOSITS

In case of deposits, the fineness of which may be readily determined approximately by inspection, payment may, at the discretion of the superintendents of the coinage mints and the assay office at New York, be made within 10 per cent of their value, or within 2 per cent when already closely determined by assay and awaiting remelting or reassay for exact determination: Provided, No partial payment shall be made on a deposit containing less than $5,000 in gold, or 5,000 ounces of silver.

e) DEPOSITS OF UNITED STATES COIN

United States gold coin of legal weight shall not be received from depositors except in sums of not less than $5,000 in exchange for gold bars.

Mutilated or otherwise uncurrent United States gold coins, of any denomination, will be received at any of the mints or assay offices of the United States, and the value of the fine gold contained will be paid to the depositor at the rate of $20.67 per ounce fine, or $18.60 per ounce standard (0.900 fine).

f) MODE OF PAYMENTS

Payments for deposits of gold bullion at the coinage mints and at the assay office in New York will be made in fine bars, coin, or by check, as may be desired by the depositor. At the minor assay offices payments are made by check on an Assistant Treasurer of the United States, or Government depository bank nearest at hand.

g) MANUFACTURE OF BARS

Unparted, fine, and standard bars may be manufactured at the coinage mints and the assay office at New York, and unparted bars at all of the institutions. Fine bars may be approved when they have a fineness of 0.992 and upward, and no bar of gold or silver of less weight than 5 ounces shall be issued at any of the mints or assay offices of the United States.

h) THE "TOLERANCE OF THE MINT" AND "TRIAL OF THE PYX"

The weight of a new gold eagle, or double eagle, must not vary more than half a grain from the standard weight fixed in the law. That of the smaller gold coins must not vary more than a quarter of a grain. This allowable variation is called the "tolerance of the mint."

The testing of this weight is determined by a "Trial of the Pyx." Five pieces out of every thousand coined are taken out by the superintendent upon receipt from the coiner and tried separately by him. If successful, these pieces are sealed and deposited in a pyx which is kept under the joint care of the superintendent and the assayer and secured so that neither can have access to its contents without the presence of the other.

If the original trial by the superintendent proves unsatisfactory, all the coins shall be weighed separately, and such as are not of legal weight shall be defaced and delivered to the melter and refiner. Four times a year the samples from the minor mints are sent to the mint at Philadelphia. The entire quantity of samples is then subjected to an annual "Trial of the Pyx" by a special Assay Commission, composed of the Judges of the District Court of the eastern district of Pennsylvania, the Comptroller of the Currency, the Assayer of the assay office at New York, and such other persons as the President may, from time to time, designate. If an error

is found, the officers implicated in the error are thenceforward disqualified from holding their respective offices.

The penalty imposed upon an officer of the mint for debasing, embezzling, or in any way altering coins, or for tampering with the scales or weights used at the mints, shall be a fine of not more than ten thousand dollars and imprisonment for not more than ten years.

i) THE STANDARD TROY POUND

For the purpose of securing a due conformity in weight of the coins of the United States to the provisions of this Title, the brass troy-pound weight procured by the minister of the United States at London, in the year eighteen hundred and twenty-seven, for the use of the mint, and now in the custody of the mint in Philadelphia, shall be the standard troy pound of the mint of the United States, conformably to which the coinage thereof shall be regulated. Duplicates of this standard troy pound shall be procured for the other mints and assay offices. Inspection and testing of these shall be made annually by the Assay Commission along with the testing of coins.

j) ABRASION

Where gold is used extensively as a circulating medium there is a considerable loss from wear and tear, or abrasion. The law in the United States permits an abrasion equal to one-half of 1 per cent in 20 years, and proportionally for each year. For instance, an eagle, at the end of 20 years, would be current if it weighed only 256.71 grains instead of 258 (or 258.50 when allowance is made for the tolerance of the mint). The annual abrasion permissible is .0645. Experiments have shown that this limit of abrasion is high enough to avoid frequent recoinage in the United States.

In case a gold coin is uncurrent on account of abrasion in the United States the loss falls on the last holder. This appears like an injustice, since the loss is due to social wear. It has thus far been held, however, that the impossibility of determining whether the light weight is due to abrasion or sweating makes it necessary to charge the loss entirely to the last holder.

k) COUNTERFEITING

"Whoever shall falsely make, forge, or counterfeit, or cause or procure to be falsely made, forged, or counterfeited, or shall willingly aid or assist in falsely making, forging, or counterfeiting any coin or bars in resemblance or similitude of the gold or silver coins or bars which have been, or hereafter may be, coined or stamped at the mints and assay offices of the United States, or in resemblance or similitude of any foreign gold or silver coin which by law is, or hereafter may be, current in the United States, or are in actual use and circulation as money within the United States; or whoever shall pass, utter, publish, or sell, or attempt to pass,

utter, publish, or sell, or bring into the United States or any place subject to the jurisdiction thereof, from any foreign place, knowing the same to be false, forged, or counterfeit, with intent to defraud any body politic or corporate, or any person or persons whomsoever, or shall have in his possession any such false, forged, or counterfeited coin or bars, knowing the same to be false, forged, or counterfeited, with intent to defraud any body politic or corporate, or any person or persons whomsoever, shall be fined not more than five thousand dollars and imprisoned not more than ten years." For counterfeiting minor coins the penalty is a fine of not more than one thousand dollars and imprisonment for not more than three years. For debasing, defacing, injuring, etc., any gold or silver coins with intent to defraud, the penalty is not in excess of a fine of two thousand dollars and imprisonment for five years.

50. SEIGNORAGE[1]

The word seignorage, also spelt seigneurage, seigneuriage, and seigniorage, is of Norman-French origin. Under the feudal system the right of coinage was an exclusive privilege of the king or seigneur. This personage not unnaturally took the opportunity of exacting a fee when the mint was employed in the coinage of metal belonging to his subjects. The money thus raised was retained by the king for his use, and it was to this portion of the royal income that the title seignorage was applied.

The total amount paid by merchants for the privilege of having their bullion converted into coin was the sum of two charges, one of which went to the king, and the other to the officers of the mint. The first was the *seignorage*, the second the *brassage*. This latter term has never been generally used in England, but it has been referred to under the head of *mint-charge*, or *charge* for *coinage*.

These two charges were fixed at a sum per pound calculated on the gross weight of coin produced from the bullion sent in, and their amount was collected by a deduction from the coin delivered to the merchant. Thus we find that in the reign of Edward III (1345) the deduction made at the mint from gold coins delivered to the public was at the rate of £1 3*s*. 6*d*. per lb., of which £1 went to the king as his seignorage, and 3*s*. 6*d*. to the mint to defray the cost of coinage. In the same year the charge for coining silver was fixed at 1*s*. 3*d*. per lb., of which 9*d*. went to the officers of the mint, and 6*d*. to the exchequer.

[1] From Palgrave, *Dictionary of Political Economy*, III, 372–73.

The revenue directly raised by the seignorage charge was at various times supplemented by one or both of the following means: (*a*) the use of the Tower pound; and (*b*) advantage taken of the Remedy, or Shere, allowance to issue coins uniformly short of their full legal weight.

The Tower pound was equal in weight to 11 oz. 5 dwt. troy, so that 16 lb. Tower = 15 lb. troy. Metal sent to the mint for coinage was received by troy weight, but given out to the coiners by Tower weight. The legal number of pieces per pound was then coined from this diminished weight of metal. The king thus added to his revenue a sum equal to the value of one-sixteenth of all the metal brought to the mint for coinage, while he derived the same amount from the seignorage charge as if the coin had been weighed and delivered by troy weight, this charge being based upon the number of *Tower* pounds of coin produced. The use of the Tower pound in the mint was abolished in 1527 by a proclamation of Henry VIII.

51. SOCIAL EFFECTS OF A BAD COINAGE[1]

By THOMAS BABINGTON MACAULAY

The old crude hammered coins of Great Britain were of varying weight, slightly irregular shape, and with unmilled edges. As a result they were easily clipped and mutilated. In the time of William III the practice of paring down money was far too lucrative to be checked even by the penalty of high treason. The severity of the punishment gave encouragement to the crime. For the practice of clipping did not excite in the common mind a detestation resembling that with which men regard murder, arson, robbery, nay, even theft. The injury done by the whole body of clippers to society as a whole was indeed immense; but each particular act of clipping was a trifle. To pass a half-crown after paring a pennyworth of silver from it seemed a minute and almost imperceptible fault. Even while the nation was crying out most loudly under the distress which the state of the currency had produced, every individual who was capitally punished for contributing to bring the currency into that state had the general sympathy on his side. Constables were unwilling to arrest the offenders. Justices were unwilling to commit. Witnesses were unwilling to tell the whole truth. Juries were unwilling to pronounce the word guilty. There was a general conspiracy to prevent the law

[1] Adapted from *History of England*, 1848, chap. xxi.

from taking its course. The convictions, numerous as they might seem, were few indeed when compared with the offenses, and the offenders who were convicted looked on themselves as murdered men, and were firm in the belief that their sin, if sin it were, was as venial as that of a schoolboy who goes nutting in the wood of a neighbor.

In the autumn of 1695 it could hardly be said that the country possessed, for practical purposes, any measure of value. It was a mere chance whether what was called a shilling was really ten pence, sixpence, or a groat. The results of some experiments that were tried at that time deserve to be mentioned. The officers of the exchequer weighed £57,200 of hammered money which had recently been paid in. The weight ought to have been above 220,000 ounces. It proved to be under 114,000 ounces. Three eminent London goldsmiths were invited to send £100 each in current silver to be tried by the balance. The £300 ought to have weighed almost 1,200 ounces. The actual weight proved to be 624 ounces. The same test was applied in various parts of the kingdom with practically everywhere similar results. There were some northern districts, however, into which the clipped money had only begun to find its way. An honest Quaker who lived in one of these districts recorded the amazement with which, when he travelled southward, shopkeepers and innkeepers stared at the broad, heavy half-crowns with which he paid his way. They asked whence he came and where such money was to be found. The guinea which he purchased for twenty-two shillings at Lancaster bore a different value at every stage of the journey. When he reached London, it was worth thirty shillings and would have indeed been worth more had not the government fixed that rate as the highest at which gold should be received in the payment of taxes.

It may well be doubted whether all the misery which had been inflicted on the English nation in a quarter of a century by bad kings, bad ministers, bad Parliaments, and bad judges was equal to the misery caused by bad crowns and bad shillings. Those events which furnish the best themes for pathetic or indignant eloquence are not always those which most affect the happiness of the great body of the people. The misgovernment of Charles and James, gross as it had been, had not prevented the common business of life from going steadily and prosperously on. While the honor and independence of the state were sold to a foreign power, while chartered rights were invaded, while fundamental laws were violated, hundreds of thousands of quiet, honest, and industrious families labored and traded,

ate their meals, and lay down to rest, in comfort and security. Whether Whigs or Tories, Protestants or Jesuits, were uppermost, the grazier drove his beasts to market; the grocer weighed out his currants; the draper measured out his broadcloth; the hum of buyers and sellers was as loud as ever in the towns; the harvest-home was celebrated as joyously as ever in the hamlets; the cream overflowed the pails of Cheshire; the apple juice foamed in the presses of Herefordshire; the piles of crockery glowed in the furnaces of Trent, and the barrows of coal rolled fast along the timbered railways of the Tyne. But when the great instrument of exchange became thoroughly deranged, all trade, all industry, were smitten as with a palsy. The evil was felt daily and hourly in almost every place and by almost every class, in the dairy and on the threshing-floor, by the anvil and by the loom, on the billows of the ocean and in the depths of the mine. Nothing could be purchased without a dispute. Over every counter there was wrangling from morning to night. The workman and his employer had a quarrel as regularly as the Saturday came around. On a fair day or a market day the clamors, the reproaches, the curses, were incessant; and it was well if no booth was overturned and no head broken. No merchant could contract to deliver goods without making some stipulation about the quality of the coin in which he was to be paid. Even men of business were often bewildered by the confusion into which all pecuniary transactions were thrown. The simple and the careless were pillaged without mercy by extortioners whose demands grew even more rapidly than the money shrank. The price of the necessaries of life, of shoes, of ale, of oatmeal, rose fast. The laborer found that the bit of metal, which, when he received it, was called a shilling, would hardly, when he wanted to purchase a pot of beer or a loaf of rye bread, go as far as a sixpence. Where artisans of more than usual intelligence were collected in great numbers, as in the dockyard at Chatham, they were able to make their complaints heard and to obtain some redress. But the ignorant and helpless peasant was cruelly ground between one class which would give money only by tale and another which would take it only by weight.

III

EARLY EXPEDIENTS FOR INCREASING THE CURRENCY

Introduction

The general confusion of mind that has always existed with reference to the nature and functions of money, and the widespread and persistent belief that money is somehow synonymous with, or at least a superior form of, wealth, and that in consequence its accumulation is one of the chief ends and aims of individuals and of society, are the main underlying causes of the great monetary movements and controversies of history. At bottom, the trade regulations to secure importations of specie, the periodical debasing of the currency, the issues of irredeemable paper money, and the use of two metals as a standard were all largely caused by the belief in the virtue of much money. And, conversely, the tremendous opposition to the abolition of these various systems or practices, one after another, has been largely due to the same underlying philosophy. It is necessary to say *mainly* or *largely* due to these views, because there has been at all times a scientific side to the controversies which was not controlled by this popular confusion, and there have been, also, numerous times, as will be noted later, when the popular arguments resulted from other influences. Nevertheless this general confusion of money with wealth must be taken as the starting-point for an understanding and appreciation of monetary history. Approaching the study of money from an academic standpoint alone affords but a meager understanding or appreciation of its relation to economic development.

It is the belief of Alexander Del Mar, who has doubtless given more study to the origin and development of monetary systems than any other student, that the history of money *is* the history of civilization. While this view is not accepted by most writers, all are nevertheless agreed that money has played a tremendous rôle in the evolution of society. Similarly, there has been more discussion on this subject, and more articles and books have been written on monetary issues, than on any other question in the realm of political economy. At the same time the various controversies have doubtless

developed more extreme enthusiasm and greater bitterness in denunciation than those on any other subject. In the exaggerated words of Mr. Bryan, "brother has been arrayed against brother, father against son. The warmest ties of love, acquaintance, and association have been disregarded; old leaders have been cast aside . . . . and new leaders have sprung up to give direction to the cause of truth."

In the present section we are concerned with the practice of governmental debasement of the currency, once almost universal. As the readings indicate, the practice was common in Roman times (it was doubtless universally prevalent among the ancients) and throughout mediaeval history well down to the modern period. The purposes of such debasements are shown to be various, but the most common, aside from the pressing requirements of the royal exchequer, were to increase the volume of currency by making more coins out of the same quantity of metal, and to control the international flow of currency. This latter was obviously for the purpose of insuring at all times within the country as large a quantity of the precious metals as possible. This end was, however, continually defeated by the operation of Gresham's law.

52. METHODS OF DEBASING THE STANDARD[1]

BY JOSEPH HARRIS

First, by altering the denomination of the coins without making any alteration at the mint, or in the coins themselves; as suppose nine-pence should be called a shilling (twelve-pence).

Secondly, by continuing the same names and the same weights to the coins, but making them baser, or with less silver and more alloy.

Thirdly, by preserving the same fineness of the metal, but making the coins smaller or lighter.

Lastly, the two last methods, or all three methods, might be compounded together.

53. ROMAN DEBASEMENT OF THE CURRENCY[2]

BY J. S. REID

The political importance of sound currency has never been more conspicuously shown than in the century which followed the death of Commodus (A.D. 180). Augustus had given a stability to the

[1] Adapted from *An Essay on Money and Coins* (1757). Reprinted in *Select Currency Tracts*, 450–51.

[2] Adapted from "The Reorganization of the Empire," in the *Cambridge Mediaeval History*, I, 39–40. (The Macmillan Co., 1911.)

Roman coinage which it had never before possessed. But he imposed no uniform system on the whole of his dominions. Gold (with one exception) he allowed none to mint but himself. But copper he left in the hands of the Senate. Silver he coined himself, while he permitted many local mints to strike pieces in that metal as well as in copper.

Although the imperial coins underwent a certain amount of depreciation between the time of Augustus and that of the Severi, it was not such as to throw out of gear the taxation and commerce of the Empire. But with Caracalla a rapid decline set in, and by the time of Aurelian the disorganization had gone so far that practically gold and silver were demonetized, and copper became the standard medium of exchange. The principal coin, that professed to be silver, had come to contain no more than 5 per cent of that metal, and this proportion sank afterwards to 2 per cent. What a government gains by making its payments in corrupted coin is always more than lost in the revenue which it receives. The debasement of the coinage means a lightening of taxation, and it is never possible to enhance the nominal amount receivable by the exchequer so as to keep pace with the depreciation. The effect of this in the Roman Empire was greater than it would have been at an earlier time, since there is reason to believe that much of the revenue formerly payable in kind had been transmuted into money. A measure of Aurelian had the effect of multiplying by eight such taxes as were paid in coin. As the chief (professing) silver coin had twenty years earlier contained eight times as much silver as it had come to contain, he claimed that he was only exacting what was justly due, but his subjects naturally cried out against his tyranny. No greater proof of the disorganization of the whole financial system could be given than lies in the fact that the treasury issued sack loads (*folles*) of the *Antoniani*, first coined by Caracalla, which were intended to be silver, but were now all but base metal only. These *folles* passed from hand to hand unopened.

54. THE EFFECT OF ROMAN DEBASEMENTS[1]

By GEORGE FINLAY

The depreciation in the value of the circulating medium during the fifty years between the reign of Caracalla and the death of Gallienus annihilated a great part of the trading capital in the Roman

[1] Adapted from *A History of Greece*, I, 52. (The Clarendon Press, 1877.)

Empire, and rendered it impossible to carry on commercial transactions, not only with foreign countries but even with distant provinces. Every payment was liable to be greatly diminished in real value, even when it was nominally the same. This state of things at last induced capitalists to hoard their coins of pure gold and silver for better days; and as these better days did not occur, all memory of many hoards was lost, and the buried treasures, consisting of select coins, have often remained concealed until the present time. Thus the frauds of the Roman emperors have filled the cabinets of collectors and the national museums of modern Europe with well-preserved coins.

The laws which regulate the distribution, the accumulation, and the destruction of wealth, the demand for labor, and the gains of industry, attest that the depreciation of the currency was one of the most powerful causes of the impoverishment and depopulation of the Roman Empire in the third century, and there can be no doubt that Greece suffered severely from its operation.

55. KING JAMES' BRASS MONEY[1]

BY THOMAS BABINGTON MACAULAY

When James II, after abdicating and fleeing to France, had returned to Dublin in 1689 and was seeking to regain his throne by the aid of an Irish Parliament, he found himself hampered by an empty treasury. Could he at once extricate himself from his financial difficulties by the simple process of calling a farthing a shilling? He reasoned that since the right of coining money belonged to the royal prerogative, the right of debasing the coinage must also belong to it.

Pots, pans, knockers of doors, pieces of ordnance which had long been past use, were carried to the mint. In a short time lumps of base metals, nominally worth near a shilling sterling, intrinsically worth about one-sixteenth part of that sum, were in circulation. A royal edict declared these pieces to be legal tender in all cases whatsoever. A mortgage for a thousand pounds was cleared off by a bag of counters made out of old kettles. Any man who belonged to the caste now dominant could walk into a shop, lay on the counter a bit of brass worth three pence, and carry off goods to the value of half a guinea. Legal redress was out of the question. Indeed, the sufferers thought themselves happy if by the sacrifice of their stock in trade they could redeem their limbs and their lives. Of all the plagues of

[1] Adapted from *History of England* (1848), chap. xii.

that time none made a deeper or a more lasting impression on the minds of the Protestants of Dublin than the plague of brass money.

56. COINAGE DEBASEMENTS IN ENGLAND[1]

By JAMES MACLAREN

When the method of reckoning by pounds, shillings, and pence was introduced into this country by William the Conqueror, a certain amount of pure silver was allotted to each coin; the pound sterling and the shilling were then, indeed, but imaginary money, the largest silver coin in existence being the penny, which contained the two hundred and fortieth part of a pound of silver; but a shilling if then coined would have contained the twentieth part of a pound, and the pound sterling would have weighed a pound.

Our kings soon began to debase the currency by diminishing the quantity of pure metal contained in the coins without altering their denomination; their motive, according to Lord Liverpool, being not merely the gain which they themselves obtained by making more money out of the same amount of bullion, but also a desire to increase the wealth of their subjects, which they supposed to depend upon the quantity of money in the country, so ancient is the theory which attributes a power of increasing the national prosperity to an extension of the currency. These debasements were practiced to a great extent in the later years of the reign of Henry VIII, and in the beginning of that of his son, who, however, afterwards prepared a scheme for the restoration of the coinage to its former standard, which, with some modification, was carried into effect by Elizabeth.

57. REASONS FOR DEBASING THE STANDARD[2]

By JOSEPH HARRIS

The causes of the adulteration of our coinage may be listed as follows:

1. I have often heard it asserted that our standard of money is too good, and should therefore be debased.

2. Debasing the standard is urged as a means of increasing the currency, by giving old names to smaller pieces of money.

[1] Adapted from *History of the Currency*, pp. 1–2. (Edward Bumpus, 1879.)

[2] Adapted from *An Essay on Money and Coins* (1757). Reprinted in *Select Currency Tracts*, pp. 566–67.

3. Debasements are necessary to keep coin from being melted or exported.

4. A gradual debasement would not be perceived and would therefore do no injury to anyone.

5. Many of our coins are light from long use, and to prevent confusion the new coins should be of the same weight as the abraded ones.

58. A DEFENSE OF THE PRACTICE[1]

BY DAVID HUME

While an increase in the quantity of specie will in time raise prices and thus offset the apparent gain, it may increase to a considerable pitch before it has this latter effect. In the frequent operations of the French king on the money, it was always found that the augmenting of the numerary value did not produce a proportional rise in prices, at least for some time. In the last year of Louis XIV money was raised three-sevenths, but prices augmented only one-seventh. Coin in France is now sold at the same price, or for the same number of livres, it was in 1683, though silver was then 30 livres the mark, and is now at 50.

This seems to be one of the best reasons for a gradual and universal augmentation of the money which can be given. Were all our money, for instance, recoined, and a penny's worth of silver taken from every shilling, the new shilling would probably purchase everything that could have been bought by the old; the prices of everything would thereby be insensibly diminished; foreign trade enlivened; and domestic industry, by the circulation of a greater number of pounds and shillings, would receive some increase and encouragement.

In every kingdom into which money begins to flow in greater abundance than formerly, everything takes on a new face; labor and industry gain life; the merchant becomes more enterprising; the manufacturer more diligent and skilful; and even the farmer follows his plow with greater alacrity and attention.[2]

[1] Adapted from *Political Discourses* (1752), pp. 46–49.

[2] Hume points out, however, that in time, if the debasement is considerable, the rising prices will prove rather a disadvantage than an advantage.—EDITOR.

59. GRESHAM'S LAW AND THE FAILURE OF DEBASEMENTS[1]

By W. STANLEY JEVONS

Sir Thomas Gresham, a royal agent of Elizabeth, pointed out how, by debasement, two kinds of metallic money, although nominally of equal value, could not be kept in concurrent circulation. In the exchanges, wherein coins are valued according to weight, the inferior were separated from the superior coins, and the latter were exported.

Though the public generally do not discriminate between coins and coins, provided there is an apparent similarity, a small class of money-changers, bullion-dealers, bankers, or goldsmiths make it their business to be acquainted with such differences, and know how to derive a profit from them. These are the people who frequently *uncoin* money, either by melting it or exporting it to countries where it is sooner or later melted. Hence arises the practice, extensively carried on in the present day in England, of *picking and culling*, or, as another technical expression is, *garbling* the coinage, devoting the good new coins to the melting-pot, and passing the old worn coins into circulation again on every suitable opportunity.

In all other matters everybody is led by self-interest to choose the better and reject the worse; but in the case of money, it would seem as if they paradoxically retain the worse and get rid of the better. The explanation is very simple. The people, as a general rule, do not reject the better, but pass from hand to hand indifferently the heavy and the light coins, because their only use for the coin is as a medium of exchange. It is those who are going to melt, export, hoard, or dissolve the coins of the realm, or convert them into jewelry and gold leaf, who carefully select for their purposes the new, heavy coins.

[1] Adapted from *Money and the Mechanism of Exchange* (1875), pp. 79–81. (D. Appleton & Co.)

IV

THE STANDARD QUESTION: BIMETALLISM

Introduction

Monetary controversies have centered mainly around the question, What should constitute the basis of the monetary system? The general problem here involved has numerous phases and its adequate presentation requires several chapters. While in its broad outlines it involves primarily only the question of bimetallism and of government paper money, for chronological reasons, as well as for clarity of exposition, its treatment is best broken up into several divisions, as is indicated by the sectional headings IV to VII inclusive.

In the present section we are concerned with bimetallism, first, as to general theory, and, secondly, as to its practical success in operation up to 1873. By the general theory of bimetallism we mean the arguments in its favor that have been advanced by scientific students, as distinguished from the views presented by the general public in connection with monetary propagandas. In raising the problem of bimetallism a frequent source of confusion must be noted. The "standard" question in our monetary history did not center around the common denominator or measure of value. The bimetallic controversy was mainly waged, on the one hand, over the adequacy of a single metal, alone, to serve the needs of trade as a medium of exchange, and, on the other, to furnish the stability required for a good standard of deferred payments. So far as serving merely as a common denominator of value at a given moment of time is concerned, a great quantity of the money material is not required, nor is stability of value particularly important. Although it is inconceivable that any commodity should come to be used as a common denominator of value that had not exhibited a relatively stable value in the past—stable enough to mean something fairly definite to those who would reckon by it—nevertheless, when it is once adopted future changes in its value become of minor consequence. General prices are merely higher or lower, as the case may be, and so far as comparing relative values at a given moment is concerned it still serves satisfactorily enough. But not so when the time element enters. A change in the level of prices works havoc

with time contracts and seriously deranges business affairs; a first requisite for a satisfactory standard of deferred payments is therefore stability of value. Changing price levels also mean social maladjustment through the failure of wages and salaries to change with corresponding rapidity. This is sometimes said to be an evil of a fluctuating common denominator; but in fact it is the time element that causes the maladjustment. The quantity of money and the stability of its value are problems which are really connected only with the functions as medium of exchange and standard of deferred payments. A loose use of terms in connection with the functions of money has resulted in much confusion of issues and it is particularly important to keep the distinctions just made constantly in mind.

Bimetallism appears to have been universally in use in Europe until the nineteenth century, though without any conscious adoption on the part of the various nations. Both gold and silver were money, as a matter of course, after once their superiority to other commodities for monetary purposes had been demonstrated. The general belief that a large quantity of money is synonymous with great wealth appears to have been mainly responsible for this universal acceptance of bimetallism as a mere matter of course. To the mercantilist of the eighteenth century the demonetization of either gold or silver would have seemed nothing short of suicidal. And it may fairly be said that, even with a correct analysis of the real functions performed by money in mind, it might appear that there was a genuine need for using both gold and silver as money during this period. Reference to the table of the production of the precious metals (No. 44) shows that after the opening of the mines of the New World in the sixteenth century, the annual production was not enormous. Doubtless it was no more than adequate to the needs of the rapidly expanding commerce of the age. This table of the production of the precious metals, it may be stated parenthetically, should also be constantly studied in connection with the later stages of the bimetallic controversy, for the controversies that have arisen are largely attributable to changes in productivity at the mines of gold and silver.

The crux of the difficulty with bimetallism is found in the variations in value of the metals jointly serving as the standard, and these variations in turn are obviously due to the conditions governing the relation of supply and demand for the precious metals. Given variations in the market ratio of the two metals, the operation of Gresham's

law works havoc with the system. It was necessary, however, for a good system of coinage to be developed before the operation of Gresham's law in connection with bimetallism could well be discerned. The whole problem was long obscured because of the perennial debasements of the currency and the perpetual mutilation of the coinage. "Bad money [mutilated or debased] drives out good money." When a uniform currency was achieved it was observed that Gresham's law still operated—that legally overvalued money would drive out legally undervalued money; hence the retention of bimetallism became a debatable question.

The argument on the compensatory action of a bimetallic standard has commonly been put forward as a positive argument for bimetallism. In fact, however, it is rather a negative argument, advanced in refutation of the contention that since the relative values of gold and silver can never be kept steady, owing to variations in the conditions governing supply and demand, Gresham's law will operate to defeat the maintenance of a double standard. In the readings, therefore, the compensatory action is separated from the argument for bimetallism and placed by itself following the discussion of the operation of Gresham's law.

The history of the double standard in various countries shows unmistakably that bimetallism when practiced by one nation independently of others is not a workable system; and the various nations have abandoned it one by one. This abandonment, however, did not come without a vigorous effort on the part of bimetallists to secure the adoption of international bimetallism. It was believed by many scientific students of the question that an international bimetallic system would be free from the objections to national bimetallism. The failure to secure its adoption, however, after thirty years of effort compels us to subject its merits to the test of theory rather than of actual practice. The Latin Monetary Union was the nearest approach to international bimetallism that we have had, but it cannot be regarded as a real test of the principles involved.

A. General Principles

60. THE VARIOUS KINDS OF STANDARDS

The three primary functions of money are to serve as a medium of exchange, a common denominator of value, and a standard of deferred payments. While it is theoretically possible that we might

sharply differentiate these functions, and use a separate commodity for each, it is the usual practice to employ the same commodity, or commodities, for all. Indeed, it is almost, if not quite, universal that the same commodity serves as both a common denominator of value and a standard of deferred payments; where differentiation occurs it is only with reference to the exchange function. The choice of a good standard, then, has been influenced by varying considerations; among these the quantity of the monetary material and its stability of value are of the greatest importance. Once the choice of the money material had narrowed down to the precious metals, the problem usually became one of a choice between gold and silver, or the concurrent use of both.

The single standard, or monometallism, is one in which a single metal is used as the basis of the monetary system. If gold, for instance, is chosen for this purpose, silver, as well as nickel and copper and the various forms of paper currency, occupies but a subsidiary position in the system. There is restricted coinage of silver and the bullion content is of less value than the coined money.

Under bimetallism, or a double standard, two metals are made the basis of the system. Both are freely accepted at the mints, and they are coined at a given legal ratio, adjusted as nearly as may be to the current market ratio of the two metals in the form of bullion.

With the parallel standard, the two metals are freely accepted at the mints, but are not coined as dollars or sovereigns at a given legal ratio of weights. Under bimetallism one ounce of gold when coined equals in value, say, sixteen ounces of silver; and individuals are expected to exchange them at that precise ratio regardless of their relative bullion values. With the parallel standard, on the other hand, the pieces of money are coined merely as so many ounces or pounds of metal; and no legal ratio is laid down. They pass legally only at their market ratio as it is adjusted from time to time by the play of economic forces.

A limping standard is not a true standard, but rather a temporary phenomenon found in the process of transition from bimetallism to monometallism. With such a standard, only one metal enjoys free coinage; but the second retains full legal-tender power and is perhaps not directly redeemable in gold. It is also usually called a standard from force of habit.

A kind of limping standard known as the gold-exchange standard has been developed in recent years. By means of the gold exchange,

countries which are not on a strictly gold basis are nevertheless enabled to keep their currency at substantial parity with gold in other countries. This is accomplished by means of redemption in foreign exchange. The government or its agents, while not redeeming its currency in gold, redeems it in orders on gold abroad. When there is a demand for redemption of silver the government sells bills of exchange on London or New York at a stated price in gold. The silver received from the sale of exchange is withdrawn from circulation until demand for redemption ceases. It will be observed that this system is one of indirect redemption of silver.

Another form of standard is that of irredeemable paper. In one sense this is obviously a single standard; but it differs from monometallism in that the currency material is not a commodity having a value independent of its monetary use, as in the case of the precious metals. With irredeemable paper money the paper is issued by the government and declared to be the standard of value. It is made legal tender in payment of debts and is receivable by the government in all obligations due from individuals. It is supposed to get its value either from the "fiat" of the state which issues it, or by means of a monopolistic limitation of the supply.

An irredeemable paper standard entirely independent of other standards has seldom been tried. Paper money is usually bound up in one way or another with other forms of money, being used merely as a medium of exchange, with metals as the money of account, or being only temporarily irredeemable, that is, convertible into specie at some future time.[1]

The multiple standard is a device calculated to produce an unvarying standard of deferred payments, and has no reference to the medium of exchange. The prices of a large list of representative commodities are combined for a given year or period of years into a base or index number, 100. This represents the purchasing power of money at the given time. Each year or month or week thereafter the new prices of these commodities are averaged and the variation from the base number, 100, indicates the changes in the purchasing power of money that have occurred. If the index number becomes 110, then $110 must be returned by a debtor for every $100 that had been contracted when the base was 100. If the index number becomes 95, then similarly only $95 need be paid by a debtor. In this way the inequalities resulting from a fluctuating standard would be eliminated.[2]

[1] See chap. v for full treatment of paper money.

[2] See chap. vii for discussion of this standard.

61. THE VALUE OF STANDARD MONEY

When a given commodity is chosen as a common denominator of value its function is to serve as a means of comparing the exchange ratios of commodities in general. Thus the relative values of wheat and corn are expressed by comparing each separately with the money of account. If a bushel of wheat exchanges for one dollar in standard gold, and a bushel of corn for one-half dollar, the ratio of wheat to corn is found to be two to one. The foregoing process, however, obviously first involves a direct comparison of each commodity with money; and since the standard itself is a commodity, this first value relation, or price, as it is called, is a result of the general conditions of demand and supply as affecting the standard on the one hand and the commodity to be compared with it on the other.

When a commodity is chosen as a standard for deferred payments we have a similar comparison of goods with the standard, but with a time element introduced. It is in connection with deferred payments, moreover, that the standard controversies have mainly arisen.

Since gold serves as a common denominator of value and a standard of deferred payments, it is important that one understand the forces regulating its value. The supply of gold is obviously influenced directly by the conditions of production at the mines. The discovery of a bonanza mine tends to depress the value of gold as a standard through increasing its supply; and the exhaustion of a rich vein of ore would conversely tend to raise the value of the standard through decreasing the supply.

Changes in the cost of producing gold have not in the past had much effect upon the quantity produced, owing to the speculative character of gold mining. It has been stated that the cost of producing gold has probably on the whole exceeded its value, and that the losses sustained by the many who search in vain have outweighed the gains of the fortunate few. In recent years, however, with the rapid disappearance of placer mining and the necessity of providing an expensive equipment for extracting gold ore, the cost of production has come to be carefully considered. There are marginal mines where it barely pays to take out the gold, just as there are marginal farms and marginal factories. It is doubtless true, however, that the lure of the yellow metal will indefinitely continue to play its part in the production of gold, and thus render a portion of the supply dependent upon chance.

Gold differs from other commodities, also, in that the supply at any given time is not merely the output of a previous year's mining operations; it is a stock that has been accumulated through centuries of production. Gold is a highly durable commodity, and as a result the world's supply becomes larger each year, even though the annual production may be rapidly decreasing. The greater part of all the gold mined since 1850 is still in existence and performing service quite as though it were fresh from the mines of the Klondike. The result of this accumulated world's supply is to render any yearly change in output less and less effective in influencing the value. Pouring a cup of water in a large tank has but slight effect upon the level of the water in the tank. Similarly an increased yearly supply of, say, $25,000,000, when added to a total world's supply of ten or twelve billions, can have but little effect upon the value of the whole if other factors remain unchanged. A great increase extended over a number of years may, however, obviously have a substantial effect upon the value of the entire mass of standard metal.

The demand for gold is twofold: for use as a commodity in the manufacturing and industrial arts, and for employment as a medium of exchange and as a basis of monetary systems. The demand for gold as a commodity is, of course, subject to the same general conditions as the demand for any other commodity. It has utility in the satisfaction of human desires, and this utility is affected by degree of scarcity, change of customs, possibility of substituting other commodities, etc., in the same way that the utility of other commodities is affected. For monetary uses, however, the demand for money is sometimes said to be unlimited where free coinage exists. Since all the gold produced may be taken to the mints and converted into dollars or sovereigns, it would seem that there is a permanent and unchanging demand. This view, however, overlooks the intensity of demand. It is true that monetary systems will absorb the entire quantity of gold offered; and it is true that the number of grains put in a dollar may remain unchanged. But if the supply is greatly increased, the purchasing power of gold may nevertheless be lessened. Almost any quantity of wheat would be demanded, at some price, but a doubling of the total supply would substantially lessen the exchange value of a given bushel. It is precisely similar in the case of gold.

An increase in the monetary demand for gold would be caused by the giving up of silver as a standard metal in leading countries;

by an increased use of gold as a medium of exchange; by an increase in the quantity of gold required as reserve for substitute forms of money; by an expansion of commerce and trade; or by a less effective use of gold through poor organization of credit. A decrease in the monetary demand for gold would result from opposite causes.

62. THE POPULAR CONCEPTION OF A "DOLLAR"[1]

By SIMON NEWCOMB

So far as intellectual conceptions go, it ought to be perfectly obvious that calling a piece of metal, or a piece of paper, one dollar no more gives it value than calling a ruler one foot gives it length. It should be just as easy to suppose two different kinds of dollars, say a piece of silver and a piece of gold, both declared equal dollars by act of Congress, to have different actual values, as to conceive of two scales, made in different parts of the country, and both declared legal yards, having different lengths. As a matter of fact, however, the conception is not so easy when applied to any concrete case. The quality of length is evident to the senses, and the conception of this quality can be gained by simply looking at an object. The quality called value not only evades all examination by the senses, but its very conception is so abstract and difficult that the ablest economists are not yet fully agreed as to its statement. Little wonder, then, if the typical man should feel much satisfaction at being worth twice as many dollars this year as he was last, even if the dollars themselves are worth only half as much, or feel impoverished by a great reduction of his money values, though he could still command as many of the utilities of life as he could before.

63. THE "SCIENTIFIC" ARGUMENT FOR BIMETALLISM[2]

By FRANCIS A. WALKER

The first advantage possessed by bimetallism is that two metals constitute a better money than either metal by itself could be. The mining of the precious metals has in all ages been a work of highly spasmodic and often intermittent activity. Moreover, each metal has its peculiar sources and conditions of supply. The bimetallist, therefore, argues that it is reasonable to anticipate that the variations in production of the one will, in a degree greater or less, offset those

[1] Adapted from "Has the Standard Gold Dollar Appreciated?" *Journal of Political Economy*, September, 1893, pp. 503–4.

[2] Adapted from *Money, Trade and Industry*, pp. 157–58. (Henry Holt & Co., 1889.)

of the other. They will not be likely to fall off in their yield at the same time and to the same amount. It would be too much to expect that the maximum production of one would coincide with the minimum production of the other. But the irregularities of mining fortune could scarcely fail to secure a more equable yield of the two metals taken together than of one separately.

This contention, moreover, is fully borne out by the facts of production during the present century.

On this point the monometallist alleges that gold and silver, having their separate sources and conditions of supply, are likely to be produced irregularly as compared with each other; that now gold and now silver will be yielded in excess; that, consequently, their relative values must fluctuate greatly, and that a concurrent circulation of the two is not possible.

The bimetallist rejoins that the considerations alleged show how illy either metal alone is fitted for its office as a standard of deferred payments, and establish the great utility of so uniting them in the monetary function that the irregularities of the production of one may be in some degree at least offset by those of the other.

The second advantage which the bimetallists claim for their system is that, by the establishment of a normal price for each of the two metals thus joined in the money office, a normal price of gold in terms of silver, a normal price of silver in terms of gold, a par-of-exchange is created and sustained between the nations using gold and the nations using silver. The natural consequence of this the bimetallists claim to be of vast importance to the trade and production of the world. A nearly stable monetary relation, a proper par-of-exchange, is established between the portions of the world using silver and the portions using gold. The merchant of a silver country exporting his goods to a gold country can always compute precisely or approximately what the gold he obtains by the sale of his merchandise will be worth in silver. He can thus make his arrangements for business, and his contracts for labor and material, with confidence. In the same way the merchant in a gold country, exporting his goods to a silver country, runs no risk of loss through fluctuation in the comparative value of the metals, in which he buys and in which he sells, respectively. The two have a nearly fixed relation, and can thus, with but a small margin, if any, be rendered into each other for the purpose of international exchange. The gain to commerce and, through commerce, to industry, resulting herefrom is asserted by the bimetallist to be very great.

64. COMMERCIAL RATIO OF GOLD AND SILVER SINCE 1687[1]

Year	Ratio	Year	Ratio	Year	Ratio
1687	14.94	1822	15.80	1868	15.59
1690	15.02	1823	15.84	1869	15.60
1695	15.02	1824	15.82	1870	15.57
1700	14.81	1825	15.70	1871	15.57
1705	15.11	1826	15.76	1872	15.63
1710	15.22	1827	15.74	1873	15.92
1712	18.31	1828	15.78	1874	16.17
1715	15.11	1829	15.78	1875	16.59
1720	15.04	1830	15.82	1876	17.88
1725	15.11	1831	15.72	1877	17.22
1730	14.81	1832	15.73	1878	17.94
1735	15.41	1833	15.93	1879	18.40
1740	14.94	1834	15.73	1880	18.05
1745	14.98	1835	15.80	1881	18.16
1750	14.55	1836	15.72	1882	18.19
1755	14.68	1837	15.83	1883	18.64
1760	14.14	1838	15.85	1884	18.57
1765	14.83	1839	15.62	1885	19.41
1770	14.62	1840	15.62	1886	20.78
1775	14.72	1841	15.70	1887	21.13
1780	14.72	1842	14.87	1888	21.99
1785	14.92	1843	15.93	1889	22.10
1790	15.04	1844	15.85	1890	19.76
1795	15.55	1845	15.92	1891	20.92
1800	15.68	1846	15.90	1892	23.72
1801	15.46	1847	15.80	1893	26.49
1802	15.26	1848	15.85	1894	32.56
1803	15.41	1849	15.78	1895	31.60
1804	15.41	1850	15.70	1896	30.66
1805	15.79	1851	15.46	1897	34.20
1806	15.52	1852	15.59	1898	35.03
1807	15.43	1853	15.33	1899	34.36
1808	16.08	1854	15.33	1900	33.33
1809	15.96	1855	15.38	1901	34.68
1810	15.77	1856	15.38	1902	39.15
1811	15.53	1857	15.27	1903	38.10
1812	16.11	1858	15.38	1904	35.70
1813	16.25	1859	15.19	1905	33.87
1814	15.04	1860	15.29	1906	30.54
1815	15.26	1861	15.50	1907	31.24
1816	15.28	1862	15.35	1908	38.64
1817	15.11	1863	15.37	1909	39.74
1818	15.35	1864	15.37	1910	38.22
1819	15.33	1865	15.44	1911	38.33
1820	15.62	1866	15.43	1912	33.62
1821	15.95	1867	15.57	1913	34.19

[1] Quoted from *Annual Report of Director of the Mint*, 1914, p. 213.

65. REASONS FOR VARIATION IN RELATIVE VALUE OF GOLD AND SILVER[1]

By FRANCIS A. WALKER

It is easy to find reasons for variation in the gold-value of silver and the silver-value of gold.

1. The precious metals have in a great degree their separate sources and conditions of supply. Silver is generally drawn from deep mines. A very large part of all the gold produced in the history of the world has been drawn from "placers," surface deposits, where the metal lies in fine grains mingled with the sand in the beds of old rivers, or has been derived by the process of hydraulic mining, where the force of water is directed by engineering skill to accomplish the same work in a few hours which in the case of the "placer," or "gulch-gold," has been done by centuries of frost and flood. Hence the production of silver is generally pursued through systematic mining operations. The production of gold is more largely influenced by accidental discoveries. Moreover, owing to its very low affinity for other metals, gold is largely found native, while silver, from the high degree of affinity it exhibits, is generally found in ores; so that the problem of its production involves both mechanical and chemical elements.

It will appear from what has been said that the comparative production of gold and of silver is likely to be influenced greatly by accidental discoveries of deposits, which are likely especially to favor gold production, and to be influenced greatly, also, by the progress of the arts, which is likely especially to favor silver production. Europe and South America have been the great historical silver continents; Asia, Africa, and Australia have chiefly, almost exclusively, produced gold. North America is the only continent that has produced the two metals in anything like equal value. First through the Mexican mines it made important contributions to the stock of silver; then the California discoveries constituted it the greatest gold field of the world; and more recently the extensive silver deposits of Nevada have turned the scale of production to the side of the other metal.

2. The precious metals have, in a certain degree, their separate sources of demand. The uses of gold and silver in the industrial

[1] Adapted from *Money, Trade and Industry*, pp. 139–44. (Henry Holt & Co., 1889.)

arts are widely different. In the ornamental arts the tastes of an age may assign a preference now to one and now to the other. Even in their function as money, gold and silver have not been wholly of common or indifferent use. The habits and traditions of a people and the scale of their exchange transactions may make an ounce of gold, for instance, more desirable for use as money than a certain number of ounces of silver, while among other people that quantity of silver may have a decided preference for the uses of exchange. Practically it is of great consequence that the metal or metals to be employed as money, while possessing high value for a given bulk and weight, should yet be found in quantity sufficient to afford pieces of such purity as to remain bright and clean in circulation, of such size as to be handled and carried about conveniently, in number sufficient for the needs of the community. It is evident that the number of money pieces will depend upon the spending habits of the people, and that these habits will vary with their social condition, the equality or inequality with which wealth is distributed among the classes of the community, the rapidity of circulation, etc. Copper once formed a considerable part of the monetary circulation of Europe, with the highest advantage to the commercial community. But copper has now dropped out of use as money in all advancing nations except as the smallest of small change. Within the last three hundred years silver has become the ordinary money of the civilized world, and it has already become quite a fashionable doctrine that even silver has in large measure survived its usefulness, and has grown too heavy to serve as the money of communities like those of Europe and North America. However this may be, it is manifest that in the United States, England, and perhaps France, the prevailing rates of wages and prices are such as naturally to create a preference, from considerations of convenience only, for gold, in place of silver, as the money of general circulation.

We have seen that the so-called precious metals have each their own sources and conditions of supply which are widely different from those of the other, and that they have also, in a certain degree, separate sources of demand. Evidently here is the occasion for large and frequent variations of value in the gold-value of silver and in the silver-value of gold.

But while this occasion for a divergence in value between the precious metals exists, there are causes which serve more or less effectively to restrain that divergence. These are:

1. The durability of the metals already noted. We have seen how this property tends to keep the value of gold and silver comparalively steady, since the great mass at any time in existence allows an excess or deficiency of production for one year, or for a term of years, to exercise but small influence.

The same cause operates to reduce the extent of the variations in the gold-value of silver and the silver-value of gold. If the crop of corn falls off in the same year in which the output of coal is exceptionally large, we look to see the power of a given quantity of corn to purchase coal largely increased; but a very great increase in the yield of silver coincidently with a considerable reduction in the yield of gold could not seriously affect the relative value of the two metals unless persisted in for a term of years.

2. The interchangeable use of the two metals in the arts of decoration and for the purposes of ornament has a tendency to reduce variations in their relative value. While some of the uses of each metal are characteristic, there is also a wide field occupied by them in common or indifferently. Articles of silver and articles of gold are kept for sale in the same shops; they are sold to customers in the same rank of life. A person entering such a shop often has no explicit intention as to the article he is to purchase. He is more likely to know how much he is prepared to pay for something that will answer his purpose. He may buy a small article of gold, or a large one of silver. A fall in the price of either metal, then, promotes its consumption, and thus the fall is in a degree checked.

3. The interchangeable use of the two metals as the medium of exchange has a strong tendency to check variations in their relative value. Although, as we say, each has uses in exchange which give it a preference within that field over the other, there is also ground which they occupy in common or indifferently. For payments of a certain class people can use more silver or less silver, more gold or less gold, with no appreciable diminution of convenience.

66. GRESHAM'S LAW AND BIMETALLISM

The operation of Gresham's law, as in the case of debased currency, has been the great barrier to a successful bimetallic system. Given two metals with full legal-tender power and unrestricted coinage at the mints at a given ratio, one metal will drive the other from circulation, wholly or in part, whenever the market ratio varies

from the mint ratio. The opportunity for profit in taking the cheaper metal to the mint will result in the expulsion of the dearer metal just as long as that opportunity continues. It should be carefully noted in this connection that unlimited coinage of both metals is essential to the operation of the law.

Another essential condition for the operation of Gresham's law under bimetallism is that both metals should have equal legal-tender power in the settlement of obligations. The opportunity to secure the profit obtained by exchanging coins depends upon their being equally acceptable by law. If the less valuable metal can be refused, it is obvious that it has no power to drive out the more valuable money. It is evident from this that an almost instantaneous remedy for the disappearance of the dearer money is the withdrawal of the legal-tender power from the cheaper.

67. GRESHAM'S LAW QUALIFIED[1]

BY ROBERT GIFFEN

There is a good deal of misunderstanding of the real law as to bad money "driving out" good, and an overrated metal in a bimetallic system "driving out" the underrated metal, which is commonly spoken of as the Gresham law. It is assumed that the money driven out must be physically driven out of the country, i.e., exported, and this export is regarded as a fundamental part of the Gresham law.

The "law," however, was only an observation that it is difficult, if not impossible, for good and bad coins of the same metal to circulate together, and the good coins are selected for exportation when a demand for exportation arises. The export is not a necessary part of the "law."

In point of fact, also, good and bad coins will circulate together in a given country as if they were all good when the circulation itself is not in excess of the demand for it.

In the case where bad coins drive out good coins of the same metal, the good and bad coins are both doing the same work; so the good are driven out of circulation when there is a surplus because they are more useful for other purposes than the bad, containing more of the metal. When it is a question, however, between two different metals, the coins of the different metals may be performing quite different work.

[1] Adapted from *Economic Inquiries and Studies* (G. Bell & Sons, London, 1904), II, 162–65.

The "driving out" process in this last case must consequently be a different one, when it takes place, from what it is in the case of bad versus good coins of the same metal.

The same with inconvertible paper versus metal. The metal and the paper may be required for different purposes, and so far as that is the case the paper does not drive out the metal from the same cause or in the same way, or proportions, as bad coins drive out good coins of the same metal. Gold is actually used less or more in currency in every country whether gold or silver is the standard, or whether there is a bimetallic standard with silver as the overrated metal; and gold, and sometimes silver, is also used in inconvertible-paper countries in the same way, although the paper is the standard money.

What is true is that the overrated metal and the inconvertible paper in the cases supposed drive the metal they compete with, the underrated metal, out of circulation as standard money. As there can be only one standard, the overrated metal or the inconvertible paper, as the case may be, becomes the sole standard. But the underrated metal is not thereby physically driven out of the country at all. It depends upon circumstances whether it is exported or not and how much the export is. Three things happen (besides export, or the chance of it):

1. The underrated metal may be hoarded. This is largely the fact, I believe, in almost all cases of inconvertible paper. There were, no doubt, hoards of gold in England in the inconvertible paper period at the beginning of the century, in the United States during the inconvertible paper régime which began in the Civil War, and later in Italy when it had inconvertible paper; and there have been hoards of gold in Austria, Russia, and the Argentine Republic.

2. The underrated metal may be used in actual circulation at a market ratio different from the legal ratio. Gold was always used in circulation in France as a monetary merchandise, when silver was the overrated metal, without any difficulty, but at a premium, not at the legal ratio.

3. Coins of the underrated metal may circulate as a species of token money, either because there has been a heavy seignorage on them, or because they have become worn and deteriorated, so that they occupy the same place, and do the same work, as token coinage of a different metal than the standard does in a monometallic system. This was notably the case in England with the silver coinage before 1800. Silver was underrated and gold had become the standard;

but a silver coinage of a very bad description remained, which was used exactly as the silver-token coinage is now used.

In these three ways, then, coins of an underrated metal in a bimetallic system, and coins of different metals in an inconvertible paper country, may remain physically in a country when they go out of use as standard money, without being actually exported.

When export does, in fact, take place, it arises from the formation of a surplus of the underrated metal, through changes of circumstances as regards the use of it in the various ways specified.

68. COMPENSATORY ACTION OF A BIMETALLIC STANDARD[1]

BY WILLIAM A. SCOTT

As a remedy for the variations in the market rate of gold and silver and attendant evils, bimetallists rely upon what has been called the compensatory action of the double standard. This may be described as follows: Suppose that the ratio established between the weights of gold and silver coins of the same nominal value be 16 to 1, and that a change in the market for bullion, due to a fall in the value of silver, temporarily makes the actual ratio 18 to 1. It will now be profitable for all debtors to pay in silver and sell gold coins as bullion, since for every ounce of gold thus sold they can purchase eighteen ounces of silver, and, by carrying it to the mint for coinage, pay as large a debt or make as large a purchase with sixteen ounces as they could have done with the original ounce of gold, and thus make a clear profit of two ounces of silver on every such transaction. It is not, of course, to be supposed that every person would know enough to take advantage of such a situation, or would take the trouble of going into the exchange business if he did see this chance for profit; but we may be sure that the people already in the business, namely, the bankers, would melt down or export gold coins on as large a scale as possible, and buy silver bullion and take it to the mint for coinage. One result of this procedure would be a large increase in the coinage of silver and a decrease, perhaps a complete stoppage, of the coinage of gold; and a second would be, so say the bimetallists, a large increase in the use of silver for monetary purposes, and a decrease in the use of gold. A change in the relative demand for the two metals would thus be produced which would tend to counteract the effects of the fall in the value of silver and bring the ratio between the two

[1] Adapted from *Money and Banking*, pp. 300–303. (Henry Holt & Co., 1910.)

metals on the bullion market back to that established by law for the guidance of the mint; that is, the increase in the use of the one metal and the decrease in the use of the other for monetary purposes would raise the value of the first and lower that of the second, thus tending to bring the two ratios together. A further argument is needed to show that this compensatory action would be sufficient to make the bullion ratio actually identical with the legal, and this the bimetallists find in the enormous quantities of gold and silver used for monetary purposes and in the relatively small capacity of the bullion markets to absorb increased quantities of the precious metals without experiencing great fluctuations in their value.

On account of this compensatory action of the double standard, the bimetallists claim that, if a sufficient number of nations could be induced to adopt the bimetallic system of coinage, no variation in the relative value of the precious metals could take place. The general level of prices might rise and fall on account of changes in the relative value of gold and silver and other commodities, but so far as their relations to each other are concerned no change could take place, since any tendency in that direction would be immediately counteracted by a modification in the relation between the demand and the supply of the two metals brought about by the process just described. The above supposition of a difference between the legal and market ratios, therefore, must be regarded as a hypothetical case, useful as an illustration of the way the law operates, but not useful in correspondence with facts as they would present themselves under the bimetallic system.

The relation between the compensatory law and the alleged evils of monometallism are obvious. The bimetallic system acts as a check upon fluctuations in the value of both metals, but cannot entirely prevent them. As soon as some external force, such as a discovery of new sources of supply or improvements in the methods of production, begins to affect the value of one of the metals the action of the compensatory law commences and modifies the demand for it in such a way as to counteract the rise in value, if that is the tendency of the movement, or the fall, if the new force is working in that direction; but the maximum result of this counteraction will be to prevent a change in the ratio of the two metals. It cannot go so far as to make the ratio between the demand and the supply of both metals precisely the same as before. For example, suppose that the production of silver for monetary purposes were to increase 25 per

cent under the bimetallic system; all that is claimed is that the demand for silver for monetary purposes would be increased and that for gold would be decreased to whatever degree might be necessary to prevent a change in that ratio, but that would not mean a 25 per cent change on both sides, which would be required to exactly restore the former ratio of demand to supply. Very likely a 12½ per cent increase in the monetary demand for silver and a corresponding decrease in that for gold would be sufficient, in which case both metals would have experienced a considerable fall in value, but not so great a fall as silver would have experienced had no counteracting agency been in operation. If no change had taken place meanwhile in the value of commodities prices would certainly rise, but not in the same degree as in a silver monometallic country under the same circumstances, and, if both metals had previously been appreciating in their relation to other commodities, this tendency would have been checked and perhaps entirely counteracted. As compared with conditions in a gold monometallic country suffering from an appreciating standard, the situation would be much better, because the decrease in the demand for gold for monetary purposes might just counterbalance the increasing demand or the decreasing supply which was the cause of its appreciation in the gold-standard country.

B. History of Bimetallism

69. SUMMARY STATEMENT OF MODERN MONETARY HISTORY[1]

By W. A. SHAW

Modern monetary history may be divided into three great periods: 1252–1492; 1493–1660; 1661 to the present time. The first period marked the reintroduction of gold into the coinage of Europe. The second period witnessed the discovery of America and the enormous flow of precious metals to Europe. The third period was one of remarkable steadiness of silver production with some changes in gold production until the middle of the nineteenth century, and then one of remarkable increase in the volume of both gold and silver.

The history of the first period shows with unmistakable clearness two simple facts: First, it was a period in which the commercial

[1] Adapted from *History of Currency*. Summarized from various chapters. (G. P. Putnam's Sons, 1899.)

expanse outstripped the reinforcing supply of the precious metals, with a consequent rise in the value of the precious metals. Second, the evil effects of such a scarcity of the precious metals were enormously increased by shortsighted, crafty manipulations of the currency by the European rulers, and by the rough, unscientific system of the prevailing coinage and exchange rates, and by the inability of the age to understand, or even to perceive, the hidden working of Gresham's law.

The second period was one of widely fluctuating ratios between gold and silver values, and the accompaniment of feverish instability and flux. The ratio averaged by periods is as follows:

1545–60	11.30 to 1	1601–20	12.25 to 1
1561–80	11.50 " "	1621–40	14.00 " "
1581–1600	11.80 " "	1641–60	14.50 " "

These fluctuations of the ratio varied in different countries and there was endless movement of specie from one country to another under the operation of Gresham's law. The governments of the time constantly endeavored to control this flow by changing the coinage ratios, altering the denomination of the coinage, and diminishing the content and reducing the standard of fineness. During the latter part of the period the mercantile theory was primarily responsible for the legislative attempts to control and increase the quantity of money in the various countries.

The third period first witnessed the practical decline of the mercantile theory and its elaborate legislation for the control of the currency supply. By an act of 1663 England took the lead and the statutes forbidding the exportation of bullion were removed at one blow of astounding boldness. The fall of mercantilism and the perception of a right theory of international balances opened the way to highly important results. It separated the currency phenomena from the larger problem of industrial and national power and thus prepared the ground for a scientific conception and treatment of them. This treatment resulted in the evolution of a theory and practice of bimetallism in one direction, and of the theory and practice of monometallism in another direction. Modern currency history has centered around the antagonism of these two systems. Second, this period has witnessed an enormous expansion in the production of the precious metals, the result of which has been the adoption almost universally of gold monometallism.

70. ENGLAND'S EXPERIENCE WITH BIMETALLISM[1]

By SOPHONISBA P. BRECKINRIDGE

From the time of Henry VIII the value of gold bullion changed rapidly in terms of silver, and although the mint ratios were frequently altered all efforts to retain both metals in circulation failed. In 1604 the mint ratio of gold to silver was raised 10 per cent—an increase not great enough, however, to bring gold from countries where it was more highly rated. In 1611–12 an alteration in the same direction, going too far, drove the silver out as the gold came in, causing so great a scarcity of silver that the old laws against exportation were revived and re-enacted. No remedy was found until, by the simple passage of time, in the development then in progress, the market value of gold in terms of silver overtook and soon passed the mint value of that metal.

Again in 1662–63 there was an alteration in the gold coins, caused by the market value of the gold in terms of silver creeping past the mint value. Finally, the whole question of coinage was taken up by William in 1695, who threw upon Parliament the responsibility of finding a remedy. It was proposed that the same remedy be applied that had been employed by Edward I four centuries before; that is, that the legal be adapted to the actual value of the coins; but this proposition was rejected, and the great recoinage of the silver of the realm was carried out in the years 1695–98, leaving the silver coins unchanged.

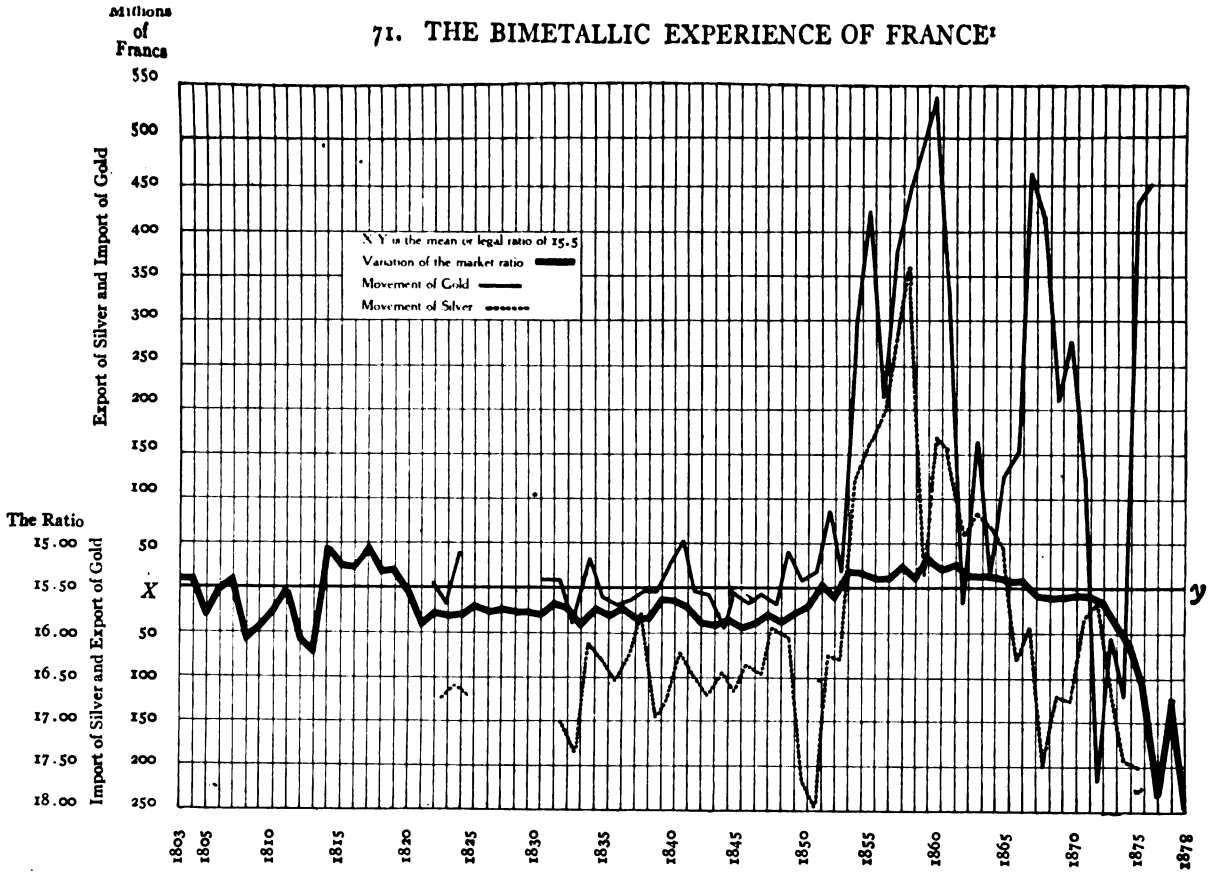
The provision for the recoinage of silver caused the gold coins to fall in value relatively to silver, and it was resolved by the House of Commons that they should not pass at a value higher than 28*s.*, which value was soon reduced to 26*s.* On the basis of this resolution an act was passed imposing a penalty on anyone who should receive or pay the twenty-shilling piece at a higher rate than 26*s.* This, by another act of the same session, was reduced to 22*s.* In 1698 their price had fallen to 21*s.* 6*d.*, at which rate they were taken by the officers of the revenue. This rating of the gold coin was not, however, such as to prevent the exportation of silver, and in 1717 the legal value of the guinea was reduced to 21*s.*

Even this estimate of gold in terms of silver was still too high, however, to bring silver into circulation, and during the century it

[1] Adapted from *Legal Tender*, pp. 43–46. (The University of Chicago Press, 1903.)

remained so scarce that gold became the customary medium of exchange and the true standard of payments. In 1774 this state of facts was recognized by legislation, and the legal-tender power of silver coin was limited to £25 in any one payment, an excess of that amount being paid by weight at the rate of *3s. 2d.* to the ounce. This act, the duration of which was for two years, was in 1776 renewed for another period of the same length. In 1778 it was extended to 1783, when it was allowed to expire. In 1798 it was again revived, and continued until 1816, when the silver coins were reduced in weight and given the position of representative coins having a limited legal-tender power. By this act gold was declared to be the standard coin of the realm; the silver pound was to be divided into shillings weighing $87\frac{3}{11}$ grains, and it was decreed that silver coins should be considered representative coins, legal tender to the value of two guineas only.

71. THE BIMETALLIC EXPERIENCE OF FRANCE[1]



[1] From 1803 to the closing of the mint to free coinage of silver in 1875. Chart made from data given in Shaw, *The History of Currency*, p. 179. (G. P. Putnam's Sons, 1896.)

72. THE ADOPTION OF THE GOLD STANDARD BY LEADING NATIONS

National bimetallism has been tested by the experience of practically every modern commercial nation. England was the first country to give up the double standard, resorting to a monometallic system in 1816. For an indefinite period England had suffered from the evils of a fluctuating standard. During the eighteenth century the only silver coins remaining in circulation were those which had been much reduced in weight by fraudulent clipping; all the rest had been driven out by the cheaper gold coins.

The kingdom of Portugal next adopted the single gold standard in 1854. In the year 1857 the states composing the German Zollverein and the empire of Austria entered into a monetary treaty by which they adopted the single silver standard. The treaty provided, however, that any of the contracting states might mint gold coins to circulate at their market value. It was expressly stipulated that these should not be legal tender, though they might be received at the public treasuries at rates to be fixed by the respective governments at least once every six months.

Shortly after the establishment of the German Empire in 1871 the single gold standard was adopted in Germany. Silver was made a subsidiary currency, and in 1873 was completely demonetized.

The states composing the Latin Monetary Union, which had been formed in 1865 in an endeavor to secure a uniform international double standard, one by one practically went over to the single gold standard in the decade of the seventies. In 1873 France limited the coinage of silver on individual account. In the same year Belgium first limited and then entirely suspended the coinage of silver. Early in 1874 the Union itself limited the amount of silver that might be coined each year by each of the countries of the Union; within three years each state had entirely ceased to coin silver and the demonetization was practically complete.

In 1873 the United States in revising her coinage system omitted the standard silver dollar from the list of coins that might be struck at the mint, and thus became a single gold standard country. This law was modified, however, and for many years there was a limited coinage of silver.

In 1873 the Scandinavian Monetary Union was formed by Norway, Sweden, and Denmark, and a single gold standard was adopted. In 1874 silver was entirely demonetized.

In 1873 Holland limited the coinage of silver and two years later adopted a single gold standard. Spain began the restriction of silver money in 1876 and completed the process in 1878. In 1876 Russia suspended the coinage of silver for individuals, except as required for trade with China. Finland adopted the single gold standard in 1877, and in 1878 Austria-Hungary abolished the free coinage of silver.

In 1893 after long agitation the mints of India were closed to the free coinage of silver. In 1898 Japan definitely adopted the single gold standard. The following year Russia completed the change begun in 1876 and adopted the gold standard. In 1900 the United States definitely settled the standard controversy that had raged for over twenty years by the enactment of a gold standard law. Practically all of the small states of the world have also in recent years adopted either the single gold standard basis or the gold exchange standard, a variation on the principle of the single gold standard.

C. Bimetallism in the United States until 1873

73. THE ADOPTION OF A MONETARY SYSTEM BY THE UNITED STATES[1]

BY A. BARTON HEPBURN

Alexander Hamilton was the first Secretary of the Treasury, and soon after organizing the department set himself the task of establishing a comprehensive federal monetary system. He first took up the question of the public debt, then the establishment of a banking system, and on January 21, 1791, presented to Congress his justly celebrated report on the establishment of a mint and a coinage system for the United States.

He examined this comprehensive subject in all its aspects and ramifications, presenting the facts and arguments bearing upon both sides of each question, and after careful analysis reached the following conclusions:

1. That the dollar, because it had been in actual use as the measure of values in practically all of the states, was the most suitable unit for the proposed system; that it was of the utmost importance to define as exactly as possible just what the dollar was, in order that neither debtors nor creditors might be injuriously affected. The

[1] Adapted from *Contest for Sound Money*, pp. 20–22. (The Macmillan Co., 1903.)

dollars in existence varied considerably, Spain having degraded or changed the standard at different times. He therefore recommended a dollar containing 371.25 grains of pure silver, as best expressing the actual average value of the coin in use.

2. That the decimal system was of demonstrated superiority over the duodecimal of Great Britain.

3. That inasmuch as the undervaluation of either metal would cause its exportation, thus shifting the standard to the other, which might result injuriously, and since it was very desirable to have coins of both metals in actual use, the ratio should conform as nearly as possible to the commercial ratio, rather than follow any specific European precedent. He therefore recommended the ratio of 15 to 1.

4. That the silver dollar was the equivalent of 24.75 grains of gold, and therefore a gold dollar containing that quantity of metal be also provided for, in order that there might be a unit coin in each metal.

5. That the fineness of the coins should be eleven-twelfths or 916⅔, corresponding with the British standard of fineness for gold; the alloys being for gold coins, silver and copper; for silver coins, copper only.

6. That no mint charge should be imposed upon the bullion brought for coinage, the cost thereof being properly a general charge rather than one to be imposed upon specific individuals, and to impose a charge might influence prices in international relations, being in effect a reduction of the standard of the coin, as compared with the bullion.

7. That foreign coins should be permitted to circulate for one year, that thereafter certain foreign pieces might be tolerated for another year or two; anticipating that the mint would be prepared to provide all the coin needed, he concluded that after three years the use of foreign coins should be prohibited.

On April 2, 1792, these recommendations, with two exceptions, were enacted into law. Congress refused to provide for a gold dollar, and altered the fineness of the silver coins by substituting a fraction resulting in .89243 fine. In all other particulars the law was practically an enactment of Hamilton's own language into statute.

74. EFFECTS OF THE CHANGING RATIO—1792–1834

The operation of Gresham's law must be comparatively slow in a new and sparsely settled country possessing but a scanty supply of the precious metals. It appears, however, that by 1810 at the latest

gold coin was being driven out of circulation; while by 1818 there was scarcely any gold to be seen. During the war from 1812 to 1815 and until the resumption of specie payments in 1818 the process of gold expulsion was greatly accelerated by the heavy issues of depreciated bank currency. In 1818 it was officially recognized that Hamilton's ratio of 15 to 1 differed so widely from the current market ratio between gold and silver that if a double standard were in fact to be maintained a new legal ratio must be established. In November of that year a committee was appointed by the House, with Lowndes as chairman, for the purpose of investigating the currency.

The Lowndes Report on the history of the currency and the state of the coinage, made early in 1819, was a comprehensive and able study. The report recommended a new ratio of 15.6 to 1. The death of Lowndes in 1822 and the consequent loss of his advocacy of a change, coupled with the conservatism of Congress, resulted in a postponement of action for nearly twenty years. Indeed, it was not until a combination of special interests having something to gain by a change in the ratio came to the support of the advocates of a new ratio that Congress could be induced to pass a law on the subject.

During this period an interesting example of the operation of Gresham's law was observed. There were many Spanish silver dollars in circulation in the United States, which were full legal tender. To quote Professor Scott, "Since they contained more silver than the corresponding coins of the United States, they were hoarded by bankers and money-changers or sent to the mint for recoinage, and, since both coins passed at their face value among the people generally, a profitable trade was carried on by sending our silver dollars to the West Indies and transporting hither the heavier Spanish coins. On this account the coinage of silver dollars was suspended in 1805, but the traffic still continued to be carried on with our smaller coins. The result was that only worn and clipped foreign silver coins were in actual circulation, and there was a great dearth of the kind of money needed for ordinary transactions."

75. COINAGE BETWEEN 1792 AND 1835[1]

Years	Total Gold	Silver Dollars	Fractional Silver
1792–1795	$ 71,485.00	$ 204,791.00	$ 165,892.80
1796–1800	942,805.00	1,052,667.00	17,103.95
1801–1805	1,533,267.50	182,059.00	287,889.00
1806–1810	1,717,475.00	.....	3,099,217.25
1811–1815	1,345,925.00	.....	2,622,316.60
1816–1820	1,820,585.00	.....	3,348,494.45
1821–1825	600,315.00	.....	5,844,178.95
1826–1830	1,302,777.50	.....	10,936,868.00
1831–1835	8,631,700.00	.....	15,371,605.00

76. THE ACT OF 1834

It was not until 1834 that the legal ratio of silver and gold was changed in an endeavor to bring it into accord with the market ratio. It appears that private interest alone was strong enough to induce a Congress to act in the matter. As Raguet says: "We should possibly have for many years remained in that situation, had it not been for a fresh occurrence by which fancied private interest was brought to bear upon Congress. That occurrence was the discovery of gold in North Carolina and other Southern States. . . . . This gradually increasing production of gold in the South engendered precisely the same spirit as the increased production of iron had done in the North. The owners of the gold mines cried out for legislative protection, as the owners of the iron mines had previously done, and laws were solicited to enable the former to get more for their gold, or rather for the rent of their land, than they could otherwise have obtained." The market ratio at the time was 15.6 to 1. These people for obvious reasons preferred a ratio of 16 to 1.

Politics also appears to have played its part in the passage of the measure. Congressman White, who had earlier presented an extensive report urging a ratio of 15.6 to 1, now championed 16 to 1, possibly because he believed in a single standard rather than in bimetallism and felt that gold would be the more desirable standard. The hot political fight over the question of rechartering the Second Bank of the United States necessitated a counter-monetary issue, and the antibank men seized upon gold currency as an effective battle cry. In the congressional debates there is ample evidence to show

[1] Adapted from Hepburn, *Contest for Sound Money*, p. 33. (The Macmillan Co., 1903.)

that Congress was aware that so great a change would inevitably drive silver out of circulation and give us in fact a single gold standard.

77. COINAGE AND EXPORTS AND IMPORTS OF PRECIOUS METALS, 1836–60[1]

COINAGE

Years	Total Gold	Silver Dollars	Fractional Silver
1836–1840	$ 10,146,100.00	$ 62,305	$11,909,529.60
1841–1845	20,214,180.00	567,218	10,841,782.00
1846–1850	69,001,515.00	435,450	10,518,680.00
1851–1855	214,142,519.00	107,650	22,864,243.00
1856–1860	130,264,446.00	1,527,930	23,132,280.00

EXPORTS AND IMPORTS

Years	Exports		Imports	
	Gold	Silver	Gold	Silver
1836–1840	$ 13,578,435	$17,423,953	$25,588,296	$30,554,104
1841–1845	10,724,258	19,705,113	21,525,334	19,771,321
1846–1850	20,695,177	13,886,373	31,739,452	13,799,885
1851–1855	184,017,429	13,145,180	13,960,026	11,799,057
1856–1860	279,790,526	18,158,678	23,845,192	28,083,659

78. THE ACT OF 1853 AND SUBSIDIARY SILVER

Until 1853 the weight of two half-dollars, four quarters, etc., was exactly equal to one dollar. In consequence, when gold came into circulation after 1834, not only the silver dollar, but subsidiary silver coins as well, were driven from circulation. Especially after the great fall in the value of gold following the discovery of the California gold mines in 1848 the country was greatly embarrassed for want of small change. The act of 1853, while not attempting to bring the silver dollar back into circulation by changing the ratio, essayed to remedy the situation so far as subsidiary silver coins were concerned. The act reduced the number of grains of pure silver in fractional coins from 371.25 to 345.6, or 6.91 per cent. Since the silver dollar was worth about 1.04 in gold, there no longer remained any profit in melting fractional silver pieces, or in withdrawing them from circulation.

[1] From Hepburn, *Contest for Sound Money*, p. 50. (The Macmillan Co., 1903.)

This reduction in weight of the fractional silver pieces, however, necessitated the adoption of a number of other provisions in order to prevent these subsidiary silver pieces from driving gold out of circulation and otherwise disarranging the currency. The principles adopted in this connection have come to be known as the laws of token money.

79. LAWS OF TOKEN OR SUBSIDIARY METALLIC MONEY[1]

As now understood and practiced, a correct system of token money would conform to the following principles:

1. Such a reduction in weight and value below the standard unit as would prevent exportation and yet not place a premium on counterfeiting.
2. Coinage only on government account; that is, no free coinage.
3. Limited legal-tender power.
4. Protection against excessive quantity by direct redemption on presentation in proper amounts, which also maintains its face value.

As a matter of course, countries have not always had clear conceptions regarding this kind of money, so that the principles just enumerated have come forth only by a process of evolution out of experience. In the United States the first rule was not observed until 1853, when our subsidiary coins were reduced to 345.6 grains of pure silver for two halves, four quarters, or ten dimes. This reduction in weight by about 7 per cent kept the bullion value of the token coins below that of both the gold and silver dollars and they circulated freely. They were worth more as small change than as bullion.

As regards the second law, it is evident that if coins are issued at a value above the cost of the bullion in them, the issuer gains this profit, or seignorage. Hence the coinage should not be allowed to a private person but should be restricted to the state, to which the profits should accrue. This is all the more necessary if the duty is laid upon the state to redeem the coins upon demand.

The reason for the third law is obvious. The standard coins being ordinarily issued only in multiples of a unit, there must frequently be fractional sums represented in a debt; and the same considerations which demand that the kind of money to satisfy the major part of the debt shall be clearly defined in law also requires that some method of legally satisfying the fractional portions should be indicated.

[1] Adapted from *Report of the Monetary Commission of the Indianapolis Convention* (1898), pp. 113–16.

Consequently the token coins are made legal tender for this purpose. On the other hand, a payment of a debt in large amounts of overvalued coins, these being of small denominations and hence heavy and cumbrous in large sums, would be a serious inconvenience. If, therefore, the legal-tender quality conferred on token coins were unlimited, the power might be abused by a captious debtor, who might insist on making some large payments in these coins for the purpose of annoying the creditor. Minor and subsidiary coins have usually been made a legal tender, therefore, only to limited amounts. In 1853 subsidiary silver coins, which hitherto had had full legal-tender power, were made payable for debts only in sums not exceeding five dollars. In 1879 this limit was raised to ten dollars.

A person obliged to make remittances abroad might have been paid here in overvalued token coins, which, not being worth in foreign countries more than the bullion they contained, would be short payment and could not be used abroad. Unless he could exchange token coins for full-valued standard coins which would be equally good abroad as well as at home, he would find business decidedly venturesome. Consequently the necessity for the fourth law becomes at once apparent. Indeed, redemption is a fundamental necessity for a system of token coins. Inasmuch as no government can ever foretell the amount which the community will absorb, it must be ready freely to provide token coins in exchange for standard coins whenever needed; and to prevent an excess from clogging the tills of merchants it must be equally ready to pay out standard coins in exchange for token coins whenever the latter are sent in to the Treasury. Thus free exchange of token coins for gold and of gold for token coins is the only proper method by which an excess in quantity is automatically prevented. If wanted, they are obtainable; if redundant, they are inevitably withdrawn. Without a method of redemption, direct or indirect, token or debased coins would certainly go to a discount if issued to excess, because, not being received equally with standard coins, a discrimination against them would manifest itself. Not having in themselves a value equal to their face value, they must borrow the deficiency only from the process by which they can be exchanged at par with full-valued coins.

In addition to the removal of excessive issues from the circulation, redemption of token coins performs an important function in the distribution and redistribution of such coins as are needed. Without redemption, nickels, for example, would accumulate in large amounts

on the hands of street-car companies; for it would be inconvenient or impossible for those companies to find people who might want small change, and it would be difficult for them to get rid of large accumulations at full value. But the system of redemption offers the means whereby those who have too much can dispose of their surplus and those who have not enough can get more. The Treasury thus acts as a distributor of the supply of token coins.

Lastly, the community will need only a limited amount of token coins for small change. What this sum will be can be determined only by experience. No one can foretell how many dimes or quarters will be needed in the daily transactions in which money is necessarily used. There must, therefore, be freedom in issuing all that is wanted. Safety is to be found in a prompt redemption of those which the public do not need. In small denominations a very large number of pieces may be required, but the total value may be inconsiderable; for larger denominations of no greater number of pieces the total sum may be quite important. The inconvenience of not having money for large and small change is so great that if the government did not provide it in a form that will circulate (as before 1853 and again in July, 1862) some substitutes are necessarily provided by merchants. The demand for token coins is, therefore, up to a certain limit, strong and steady, and if the issues are within this limit there will be no net redemptions. The coins presented by one individual or class will be withdrawn by others for use in the channels where they are wanted.

80. THE ACT OF 1853 AND THE STANDARD QUESTION[1]

BY AUGUST RODEN

No provision was made in the act of 1853 to secure the circulation of a silver dollar. There was no need of one. In 1849, when it had so rapidly disappeared, its place had been supplied by the coinage of a gold dollar, and by 1853 over 10,000,000 had been coined, which, together with the great number of $5 and $2.50 gold pieces previously in circulation, provided a plentiful currency for transactions in which coins of this size were needed, while the use of bank notes of $1 and $2 was common. The 371.25 grains of pure silver in the standard silver dollar, being worth more as bullion than as money, it was apparent that this law would take away the full legal-tender quality of all silver in circulation, leaving gold as the sole standard.

[1] Adapted from "The Dollar of Our Daddies," *Sound Currency*, IV (1897), No. 13, pp. 5–14.

No secret was made of this fact, for Congressman C. S. Dunham, of Indiana, who secured the passage of the bill in the House, relied mostly on this feature for success. In speaking against an objectionable feature of the Hunter Senate bill and in reference to the silver coins he said: "This, however, would make them a standard in all small transactions; we would thereby still continue the double standard of gold and silver, a thing which the committee desire to obviate. They desire to have the standard currency of gold only, and that these silver coins shall be entirely subservient to it and that they shall be used rather as tokens than as standard currency. We intend to do what the best writers on political economy have approved; what experience has demonstrated to be best, and what the committee believe to be necessary and proper—to make but one standard and to make all others subservient to it. We mean to make gold the standard coin, and to make these silver coins applicable and convenient, not for large payments, but for small transactions." There are other statements of a similar import. This bill with slight alterations passed ten days later, and the nation for the first time now possessed what Hamilton so earnestly strove to secure for it, and what every Secretary of the Treasury and every Congress had likewise striven for, viz., the concurrent use of both gold and silver as money by the American people. The results of that act were hailed with satisfaction and delight by Congress and the country.

It was here that the battle of the standards in America was fought and decided. The law of 1853 took away the free and unlimited coining privilege of all silver that was expected to serve as money, and to all intent and effect established gold as the only full money of the Nation. It is true that the provisions for the continued coinage of the old silver dollar were not repealed, nor was its actual coinage stopped, or intended to be stopped. When coined, however, it was never from 1853 to 1873 worth less than $1.03 and sometimes as much as $1.07, and, such being the case, there was no danger of its threatening the gold standard by a displacement of the gold currency. It was evident, however, that should silver cheapen in value so that the silver in the silver dollar should be worth less than the gold in the gold dollar (which was not considered impossible, though improbable) the gold standard would be overthrown. Why, then, it will be asked, if it was so clearly the intent to establish the gold standard in 1853, was not this menace of a possible return to silver removed by abolishing the provisions for the apparently useless silver dollar?

Though this may appear perplexing to many at the present time, the reason was very well understood in 1853. Though silver dollars ceased to circulate as early as 1849, they did not cease to be coined. In fact, nearly 6,000,000 of them were coined between 1853 and 1873. But they were not intended to be used as money by those who brought the bullion to the mint to have it stamped into dollars. They were used exclusively for commerce with China, Japan, and India, where it was more advantageous to use silver than gold in the purchase of commodities for importation into the United States, because of the relatively high valuation of silver in those countries. The nations of the East, recognizing the stamp of the United States as a guarantee of the weight and fineness of the silver in the dollar, accepted such silver more readily than they would in the form of uncoined bullion. To substantiate this assertion that this anomaly of retaining provisions for the free and unlimited coinage of the silver dollar, while virtually establishing the gold standard, was only to foster and protect American commercial interests in the East, I will quote some of the opinions and recommendations of directors of the Mint and secretaries of the Treasury made previous to 1873, at which time the privilege of unlimited coinage of silver dollars was stopped.

The first quotation I give is from the report of Mint Director Pollock, made in 1861. At this time the excuse for the continued coinage of the silver dollar for commercial purposes was beginning to lose force. Director Pollock said in this report: "The silver dollar was supposed to be needed for our China and East India trade, but our consular advices are to the effect that our silver dollars are taken very reluctantly at the ports, and not at all in the interior, of China. The reasons for its retention having ceased, we should cease to coin the silver dollar or it should be made to conform in weight and value to our lesser silver coins."

From the *Report of the Finances* for 1864, page 215: "Permit me again to refer to the anomalous character of the silver dollar of the United States and to the observations on this subject in former reports. The whole dollar should be made in weight and fineness the exact multiple of our fractional currency and the gold dollar should be declared the unit of value of our money."

From the *Report of the Finances* for 1868, page 432: "Our silver dollar is not received by the Chinese except at a discount. This is owing to the fact that while of equal fineness with the Spanish or Mexican dollar it is about 1 per cent less in weight. This

rejection seems to take away the past plea for continuing to coin that piece."

Could better evidence be brought to show that at this time gold was acknowledged as the intended and existing standard, and that our currency was in a highly satisfactory condition? The continued coinage of the silver dollar, though no more to any purpose, was as yet no menace to the existing national currency and of little expense to the Government; so Congress from its usual conservatism or lack of interest in the matter had taken no notice of the repeated recommendations for its abolition.

D. International Bimetallism

81. THE THEORY OF INTERNATIONAL BIMETALLISM

During the latter part of the nineteenth century discussion of the double standard centered largely around the question of international as distinguished from national bimetallism. There were many writers, and these the more careful students of the theory of bimetallism, who believed that bimetallism when adopted by a single nation would always break down sooner or later, but that it would prove successful if established uniformly by the leading nations of the world.

The argument was that as long as there are different coinage ratios in different countries, or so long as some important nations have bimetallism and some monometallism, the maintenance of national bimetallism is rendered impossible on account of the flow of specie from one country to another. For instance, if gold were undervalued at the United States mint relatively to silver, it would be shipped abroad to a country where such undervaluation was less, or non-existent. Such movement abroad would take place whenever even slight variations occurred in the ratios of different countries. But if there were an international agreement there would be no gain in sending the undervalued metal to a foreign country for the reason that its relative valuation would be the same in all markets. Under international bimetallism, therefore, the compensatory action of a double standard would be unimpeded.

82. THE LATIN MONETARY UNION

The nearest approach to a trial of international bimetallism is found in the Latin Monetary Union. The Latin Union resulted from the fall in the value of gold following the discoveries of gold in

California and Australia. Under the operation of Gresham's law even subsidiary silver was expelled from circulation so that there was a great dearth of small change. Switzerland, like the United States, resorted to the use of token coins. But as the unit of value was the one-franc piece (about 19 cents), Switzerland first raised the unit to five francs, and then lowered the value of the two-franc, one-franc, and fifty-centime pieces, by making them only .800 fine.

This step at once caused trouble in Italy and in France, where the franc system was also in use. The coins of these nations circulated in common in the various countries, and now, owing to Gresham's law, the cheaper Swiss coins began to drive out the dearer French and Italian coins. Accordingly, in April, 1864, France by a decree prohibited the receipt of Swiss coins for public dues of all kinds, and they therefore became uncurrent.

Belgium, also using the franc system, about this time made overtures to France looking to a concerted action by the four countries to remedy the existing evils. A conference of delegates representing Belgium, Switzerland, France, and Italy accordingly met in Paris on November 20, 1865. Discussion of the state of subsidiary coins led promptly to the larger question of the whole metallic currency system. Belgium, Switzerland, and Italy were strongly in favor of the adoption of a single gold standard, retaining silver for minor coins only; but the French delegates opposed this, it is said, because of the influence of the Bank of France and the Rothschilds. They nevertheless came to an agreement and established a uniform currency for the four countries, on the general principles of token money as adopted by the United States in 1853.

They reduced the silver pieces of two francs, one franc, fifty centimes, and twenty centimes from .900 to .835 fine. They retained bimetallism, however, coining gold pieces of one hundred, fifty, twenty, ten, and five francs, and a five-franc silver piece. These coins were all .900 fine and were coined at the ratio of $15\frac{1}{2}$ to 1. Although each country used its own inscriptions in stamping its coins, all coins of the Union were of uniform weight, fineness, diameter, and tolerance. The subsidiary silver coins were legal tender to the amount of fifty francs between citizens in each state, and for public dues to any amount. The total quantity of coin outstanding was limited, being six francs per capita.

The treaty went into effect on August 1, 1866, to continue until January 1, 1880, and at the expiration of this time to be automatically

renewed for another like period, and so on, unless dissolved a year before the expiration of the term. In 1866 Greece, Roumania, and the States of the Church entered the Union.

Within a few years, however, changed conditions of production of the precious metals caused the value of silver to fall relatively to gold. In 1872 the ratio reached 15.5 to 1 (coinciding here with the mint ratio). When the ratio fell below this the situation became quite the opposite of what it had been in 1865. The problem now was how to prevent silver from flooding the currency, rather than how to retain it in circulation. In 1871–72 there had been presented at the French mint for coinage into five-franc pieces only 5,000,000 francs of silver bullion. But in the single year 1873, when silver became the cheaper metal, 154,000,000 francs were presented. On December 16, 1873, Belgium passed an act authorizing the government to discontinue the coinage of silver five-franc pieces.

On January 30, 1874, a meeting of delegates from the various countries of the Union was called at Paris to discuss the new problem of the silver coinage. A new treaty was agreed upon which provided that during the year 1874 the power of coinage of the silver five-franc piece should be restricted, each state being limited to a moderate amount. This provision was adopted for only one year, since it was believed that the fall in the value of silver would be but temporary, having been caused by the demonetization of silver by Germany in 1873.

But the value of silver continued to fall, and the Latin Monetary Union therefore made its policy of restricting the coinage of silver continuous. In 1876 the total amount allowed to be coined for the whole Union was fixed at 120,000,000 francs. Meanwhile the various states did not coin their full quotas, Switzerland coining none in either 1875 or 1876.

Each state under the terms of the agreement reserved the power to suspend the coinage entirely, the convention fixing only the maximum that might be coined. As has been seen, Belgium exercised her right to suspend the coinage of silver in 1873. France followed suit on August 5, 1876. In 1877, the Union itself entirely suspended the coinage of the five-franc silver piece for that year (except 10,000,000 francs for Italy).

Decisive final action was taken in the treaty of November 5, 1878, which provided that the "coinage of silver five-franc pieces is provisionally suspended. It may be resumed when a unanimous

agreement to that effect shall be established between all the contracting states." This agreement was to hold until January 1, 1886. This treaty abolished bimetallism when it prohibited the coinage of the five-franc silver piece, for this was the only silver that bore the ratio of 15.5 to 1 to gold. The Union itself continued, however, with the old agreement still in force with reference to the coinage of subsidiary silver at .835 fine.

83. INTERNATIONAL BIMETALLIC CONFERENCES[1]

BY MAURICE L. MUHLEMAN

The Bland-Allison silver law of 1878 contained a provision directing the President of the United States to invite the nations of the world to meet in a conference in Paris for the purpose of persuading the nations of Europe and the commercial world in general that silver continue to be necessary for monetary purposes and that an international bimetallism arrangement should be consummated.

When the conference met in May, 1878, twelve nations were represented. Before its close others were added. But the delegates from Great Britain and Germany, as well as those of some other countries, were without power to bind their respective governments by their action.

The principal object was to arrive at a ratio at which silver might be satisfactorily given as great a freedom in the mints of the civilized world as was given to gold. The conference found no difficulty in declaring that it was necessary to maintain in the world the monetary functions of silver as well as those of gold; but the manner in which this was to be accomplished was a point upon which no agreement could be reached. After full discussion and the preparation of much valuable literature upon the subject of money, the conference adjourned late in August without practical results.

Hoping, rather than believing, that the opinions of the principal objectors to the rehabilitation of silver (Great Britain and Germany) might have undergone a change, or have become amenable to argument, the United States and France jointly invited the nations to a second conference in 1881, also at Paris. This one was as fully attended by delegates as the preceding one. But the delegates were again unable to agree upon any method by which the desired object

[1] Adapted from *Monetary Systems of the World.* (1895.) Copyright by the Author.

of restoring silver could be accomplished. An adjournment took place in July, with the understanding that the conference would reassemble in April, 1882, if called; but conditions were not regarded as favorable to its reassembling, and the project was left to die of compulsory neglect.

In 1892 the United States again invited the nations to send delegates to a conference in Brussels. When it met, in November of that year, twenty nations were represented. The declared object of the conference was to obtain an agreement recommending international bimetallism upon a ratio for silver which could be maintained, but failing in this the delegates from the United States were instructed to endeavor to induce European delegates to agree to an enlargement of the use of silver as money.

A majority of the delegates, as in the previous conferences, substantially agreed upon the desirability of bimetallism under terms of an international agreement, but, just as before, the representatives of the gold monometallic countries of Europe, to which Austria-Hungary was now added, did not manifest much sympathy with the movement, and in fact some of the delegates declared that for their respective countries the single gold standard was the only possible measure. Many propositions were, of course, discussed, but the conference, after thanking the Government of the United States for calling them together, "suspended its labors."

Finally, in 1897 in fulfilment of a pledge in the party platform of 1896, President McKinley appointed a commission of three persons to visit Europe and make one more effort to promote international bimetallism. France as usual appeared sympathetic, but in England, while the government seemed willing to co-operate, the business community objected with such vigor to any tampering with the monetary system that the entire project had to be abandoned.

V

THE STANDARD QUESTION: GOVERNMENT PAPER MONEY

Introduction

Paper money is of so many different kinds and the principles advanced and used in regulating its value have varied so widely that a clean-cut treatment of the subject is difficult. In the first place, however, a fundamental distinction should be made between government and bank paper money. The former is issued by the state itself, for the purpose of meeting current obligations when the treasury is empty, or to provide an inexpensive and convenient medium of exchange in the interest of public welfare; the latter is issued by privately managed institutions which are seeking private profit from the making of loans. The principles of regulation underlying these two forms of paper currency are fundamentally different, and they cannot be satisfactorily treated together. Since the regulation of bank paper is tied up with the whole theory of credit and banking, its treatment is therefore reserved until after our study of the principles of banking; while the present chapter is devoted to government paper money.

Government paper itself varies widely in character—from a mere substitute in circulation for metallic money of equal amount held in reserve, to paper which itself constitutes the common denominator of values and standard of deferred payments, as well as the medium of exchange. The chapter heading above therefore appears somewhat inappropriate; but since the main problems of government paper money are connected with its use as a standard, it has seemed best to treat the general subject in connection with the question of standards.

The readings under Section A below clearly indicate that the underlying causes of the advocacy of fiat money are the same as those underlying the desire for bimetallism. Its history is practically contemporaneous with that of the controversies discussed in preceding chapters, and at times the adherents of a paper currency have

joined forces with those in favor of a cheaper metallic money in the hope of gaining the common end of a plentiful supply of currency.

There have been numerous instances in this and other countries of the use of irredeemable paper money. While there have always been many who believe that irredeemable paper is the ideal money at all times, the actual issue of such currency has usually been the result of pressing financial needs on the part of the government; and as a general rule it has been regarded merely as a temporary expedient. In particular the financial exigencies of war have repeatedly led to the use of paper money. In our own history, in addition to the early Colonial and Revolutionary experiences, both the South and the North during the Civil War issued large quantities of paper with which to meet the immediate requirements of government; and in the present European struggle paper money issued through the medium of central banks largely controlled by the governments is apparently playing an important part in meeting the enormous financial requirements of the various nations involved.

The striking feature of the history of paper money is that once an issue is started it becomes well-nigh impossible to check an almost indefinite increase. Let the first step be ever so hesitant, when once it is taken other issues are likely to follow in rapid succession until the entire monetary system is demoralized. It is only in rare instances that issues have been controlled and kept within limits of safety.

The effects of an issue of irredeemable paper currency have practically always been disastrous in the long run, resulting not only in a derangement of financial relations and general disruption of business, but also in unsettling the customary morality which lies at the very basis of modern commercial life. Rather than serving as a real aid in meeting the financial requirements of wars, in the end paper money has always greatly increased the total cost, and in many cases it has proved the undoing of the nation quite as much as have the cannon of the enemy. However, there have always been plausible excuses for such issues, short-time necessities usually proving of more importance than long-time considerations. But the history of such issues should teach a lesson of vital importance in connection with financial preparedness.

One of the most interesting aspects of war in general is its effect in coloring the views of the following generation, often serving to change the fundamental philosophy of national life. The "blood-stained and battle-scarred" greenback currency of the Civil War

profoundly influenced the popular views on money in this country for decades; indeed we have not fully recovered from its spell even today. Moreover, the existence of $346,000,000 or more of this currency in our circulation continuously since the Civil War has given rise to an almost perpetual problem of regulation, and at times has seriously deranged the entire monetary and financial structure. It appears to be an obstacle even now to the success of the federal reserve system in giving us an elastic currency.[1]

Numerous methods have been suggested for the regulation of government paper money, and there has been no end of argument as to the feasibility of its issue under any circumstances. Many students believe that a limited issue of irredeemable paper would be distinctly economical, but most of them hold that the dangers attending its use are still too great to warrant the risk; and therefore urge that Congress should not be encouraged to play with the fire at all.

A. Advantages of Paper Currency

84. TYPES OF GOVERNMENT PAPER MONEY

There are three kinds or types of government paper currency: (1) mere representative paper, (2) convertible fiduciary paper, and (3) inconvertible or fiat money. Representative money is backed dollar for dollar by specie, and the paper certificates which circulate are nothing more or less than claim checks to an equivalent in coin; it gives rise to no problems of regulation. Convertible fiduciary paper is exchangeable for specie but is not covered by a coin reserve of 100 per cent. Unlike representative paper, it involves an element of trust or credit and affords a means of expanding the quantity of money beyond what is possible with the use of specie alone. Numerous devices have been developed by means of which redeemability may be insured without a full specie reserve, and there has been a long-continued discussion as to the most effective means for the purpose, resulting in the development of a fairly definite body of principles. Similarly there has been a prolonged controversy over the advantages and practicability of an irredeemable paper currency, or what may be called the "fiat" or paper standard of value. This controversy has disclosed some of the most interesting fallacies in the whole realm of political economy, and the experiences of mankind with irredeemable paper money have been among the most costly lessons that society has ever had to learn.

[1] See Reading No. 147, Part II.

85. THE ORIGIN OF REPRESENTATIVE MONEY[1]

By W. STANLEY JEVONS

The origin of representative money is of much interest. Ancient nations were unacquainted with the use of paper money, simply because they had no paper. But it would be a mistake to suppose that they did not employ representative money.

One of the very earliest mediums of exchange consisted of the skins of animals. The earliest form of representative money consisted of small pieces of leather, usually marked with an official seal. It is a very reasonable suggestion made by Storch, Bernardakis, and other writers, that when skins and furs began to be found an inconveniently bulky kind of money, small pieces were clipped off, and handed over as tokens of possession. By fitting into the place from which they were cut they would prove ownership, something in the same way as notched sticks, or tallies, were for many centuries used to record loans of money to the English Exchequer. We know by experience in the case of paper money that if a people had become thoroughly accustomed to the circulation of these small leather tallies they would in time forget their representative character, and continue to circulate them, when the government or other holders of the skins themselves had made away with the actual property. Such is no doubt the history of the leather money which long had currency in Russia.

It is, however, in China that the use of paper money was most fully developed in early times. More than a century before the Christian era an emperor of China raised funds to prosecute his wars in a way which shows that the use of leather tokens was familiar to the people. The tokens having been made of the skins of white deer, he collected together into a park all deer of this color which he could find, and prohibited his subjects from possessing any animals of the same kind. Having thus obtained a monopoly of the material, reminding one of the monopoly of the Bank of England in water-marked paper, he issued pieces of white leather as money at a high rate.

86. GENERAL ADVANTAGES OF PAPER MONEY[2]

By W. STANLEY JEVONS

There are several purposes that may be detected in the use of paper currency. Perhaps the most obvious reason is that of avoiding

[1] Adapted from *Money and the Mechanism of Exchange* (1875), pp. 192–94. (D. Appleton & Co.)

[2] *Ibid.*, pp. 195–200.

the trouble and risk of handling large amounts of the precious metals. In order to keep large sums of metallic money in safety a person must have strongholds and watchmen. At the present time in the United States silver and gold certificates have come to replace the actual silver and gold coins, in part for the reason just enumerated and in part for the one which follows.

The weight of metallic currency is a second reason for the use of representative documents in large transactions. In proportion as the legal tender is more bulky and inconvenient to carry about is this motive more powerful. Thus, when the state of Virginia employed tobacco as the medium of exchange in the eighteenth century, the tobacco was placed in stores, and receipts on paper were handed about. Paper money was issued in Russia under Catherine II in 1768, on the ground that copper money, then forming the legal tender, was inconvenient. So much were these *assignats*, or notes, preferred that they at first circulated at a premium of $\frac{1}{4}$ per cent. In the present state of commerce even gold money would be far too heavy to form a convenient medium of making payments. M. Chevalier states that it would require forty men to carry the gold equal in value to the Regent Diamond. The average daily transactions in the London Banker's Clearing-House amount to twenty millions of pounds sterling which if paid in gold coin would weigh 157 tons, and would require nearly eighty horses for conveyance. If paid in silver the weight would be increased to more than 2,500 tons. I find that a Bank of England note weighs about 20½ grains, whereas a single sovereign weighs about 123 grains, and a note may represent five, ten, fifty, a thousand, or ten thousand such sovereigns with slight differences in the printing. If we were obliged to handle a medium of exchange actually embodying value, it would, ere now, have been necessary to employ precious stones, or some metal much more rare and precious than gold.

A further and very potent motive for employing representative tokens or notes consists in the saving of interest and capital, which is effected by substituting a comparatively valueless material in place of costly gold and silver. This may be accomplished in two ways. When in straits for want of revenue a government may issue paper currency as a means of paying its obligations, agreeing to receive back the paper at some future date in payment of obligations to it. It will be observed that this is a forced loan which enables a government to procure funds without interest. A saving of interest is also

effected whenever a government has paper notes outstanding in excess of the gold held in readiness to redeem them.[1]

87. CHINESE PAPER MONEY IN THE THIRTEENTH CENTURY[2]

BY MARCO POLO

Now that I have told you in detail of the splendour of this City of the Emperor's, I shall proceed to tell you of the Mint he hath in the same city, in which he hath his money coined and struck, as I shall relate to you. And in doing so I shall make manifest to you how it is that the Great Lord may well be able to accomplish even much more than I have told you, or am going to tell you, in this book. For, tell it how I might you never would be satisfied that I was keeping within truth and reason!

The Emperor's Mint then is in this same City of Cambaluc, and the way it is wrought is such that you might say he hath the Secret of Alchemy in perfection, and you would be right! For he makes his money after this fashion.

He makes them take of the bark of a certain tree, in fact, of the Mulberry Tree, the leaves of which are the food of the silkworms—these trees being so numerous that whole districts are full of them. What they take is a certain fine white bast or skin which lies between the wood of the tree and the thick outer bark, and this they make into something resembling sheets of paper, but black. When these sheets have been prepared they are cut up into pieces of different sizes. The smallest of these sizes is worth a half tornesel; the next, a little larger, one tornesel; one, a little larger still, is worth half a silver groat of Venice; another a whole groat; others yet two groats, five groats, and ten groats. There is also a kind worth one Bezant of gold, and others of three Bezants, and so up to ten. All these pieces of paper are issued with as much solemnity and authority as if they were of pure gold or silver; and on every piece a variety of officials, whose duty it is, have to write their names and to put their seals. And when all is prepared duly, the chief officer deputed by the Kaan smears the Seal entrusted to him with vermilion, and impresses it on the paper, so that the form of the Seal remains printed upon it in red; the Money is then authentic. Any one forging it would be punished

[1] The greenback currency of the United States is also a case in point. There are $346,000,000 outstanding with a specie reserve of only $150,000,000.—EDITOR.

[2] Henry Yule's edition of *Travels of Marco Polo*, pp. 423–26. (J. Murray, 1903.)

with death. And the Kaan causes every year to be made such a vast quantity of this money, which costs him nothing, that it must equal in amount all of the treasure of the world.

With these pieces of paper, made as I have described, he causes all payments on his own account to be made; and he makes them to pass current universally over all his kingdoms and provinces and territories, and whithersoever his power and sovereignty extend. And nobody, however important he may think himself, dares to refuse them on pain of death. And indeed everybody takes them readily, for wheresoever a person may go throughout the Great Kaan's dominions he shall find these pieces current, and shall be able to transact all sales and purchases of goods by means of them just as well as if they were coins of pure gold. And all the while they are so light that ten Bezants' worth does not weigh one golden Bezant.

Furthermore all merchants arriving from India or other countries, and bringing with them gold or silver or gems and pearls, are prohibited from selling to anyone but the Emperor. He has twelve experts chosen for this business, men of shrewdness and experience in such affairs; these appraise the articles and the Emperor then pays a liberal price for them in those pieces of paper. The merchants accept his price readily, for in the first place they would not get so good a one from anybody else, and secondly they are paid without any delay. And with this paper money they can buy what they like anywhere over the Empire, whilst it is also vastly lighter to carry about on their journeys. And it is a truth that the merchants will several times in the year bring wares to the amount of 400,000 Bezants, and the Grand Sire pays for all in that paper. So he buys such a quantity of those precious things every year that his treasure is endless, whilst all the time the money he pays away costs him nothing at all. Moreover, several times in the year proclamation is made through the city that any one who may have gold or silver or gems or pearls, by taking them to the Mint shall get a handsome price for them. And the owners are glad to do this, because they would find no other purchaser give so large a price. Thus the quantity they bring in is marvellous, though those who may not choose to do so may let it alone. Still, in this way, nearly all the valuables in the country come into the Kaan's possession.

When any of those pieces of paper are spoilt—not that they are so very flimsy either—the owner carries them to the Mint, and by paying 3 per cent on the value he gets new pieces in exchange. And if

any Baron, or anyone else soever, hath need of gold or silver or gems or pearls, in order to make plate, or girdles, or the like, he goes to the Mint and buys as much as he list, paying in this paper money.

Now you have heard the ways and means whereby the Great Kaan may have, and in fact has, more treasure than all the Kings in the World; and you know all about it and the reason why.

88. PAPER MONEY AND PROSPERITY[1]

Paper currency would increase the wealth of the nation in the following ways:

I. It would replace a very expensive medium of exchange—Gold, by a very cheap one—Paper. The fifty or sixty millions of gold which are now supposed to be in circulation, and which are merely used as counters, would be then replaced by notes. Here at once would be a saving of more than two millions a year, by converting this large amount of dead stock into active, productive stock (hear). Suppose a farmer had been taught that it was necessary to use a golden ploughshare worth £1,000, and a man came and said, "I will make for you a ploughshare of iron for 100 pence, which will do the work just as well": it is plain that the farmer would have the difference between £1,000 and 100 pence to employ as *active capital* (hear). He could improve his land, drain, manure, and what not, when he had substituted a cheap ploughshare for a dear one (hear, hear). Lord Liverpool's wisdom led him to a contrary opinion, when he advocated the introduction of the present system. "The richest standard, *Gold*," said he, "is best adapted for a rich country." The country was prospering with, and by, cheap money. "Adopt an expensive money," said Lord Liverpool. "Plough your land with a golden ploughshare." We did so, and threw aside an inexpensive and tried instrument merely to adopt a fanciful theory (hear, hear, and cheers).

II. But the most important advantage of a Representative Paper Currency is this—that we should obtain a circulating medium capable of expansion, a money in which prices would be able to rise as taxes are imposed, so that taxes might be added to the cost of production, and a remunerative price be obtained (hear). And further, as our

[1] Adapted from an "Address to the Retford Currency Society" in *Currency Tracts*. Published by the Society for the Emancipation of Industry. (London, 1851.)

population increased, and our commodities increased also—in other words, as our buyers and sellers increased—money, the medium of exchange between man and man, might increase in due proportion. People sometimes ask me why the law which governs—or which *ought* to govern—the Currency, cannot be discovered? It is discovered. "Supply and demand," I say, "is the law of the Currency." As men increase, more food is required, and more clothes are required; and if left to itself, the supply will increase with the demand. So it is with Money. Make Paper Money as *safe* as you please—make it as safe and secure as gold itself; and this we can prove can be done—and then leave the trade in money free. Leave it to the general, the universal law of trade, viz., Supply and Demand (hear, hear).

I say that experience fully justifies the expectations of an improved state of things resulting from an alteration of the Currency Laws. I say that the Paper Money System, which enabled this country to prosper in spite of war, would produce tenfold advantages in a time of peace (hear). Observe, I do not say that Paper Money would do everything. I do not say, for instance, that it would enable a farmer to prosper without skill, labour, judgment, and a fair amount of capital (hear). I do not say that it would supply the place of science and of knowledge in the direction of a man's energies. I know that under any financial system, vice, improvidence, and ignorance will bear their pernicious fruits. But I do say that it would secure to labour its just reward; that it would afford to every man of integrity, talent, and energy, a fair opportunity of improving his condition; that it would prevent the attempts which are made for raising the condition of the people from being counteracted by the frequent recurrence of those periods of severe distress and privation in which their moral condition inevitably deteriorates (cheers). I say that the Paper Money System which enabled this country to lend to Government 600 millions, would enable the country to pay off the debt, and thus cause a reduction of nearly 30 millions of taxes. I believe that this country might then advance to a greater height of happiness and prosperity than ever—that instead of disunion and ill-will, we might see all classes flourishing, and contributing to each other's prosperity; that the well-being of the poor would furnish the best security for the possessions of the rich; that men would learn to prize the institutions under which they live happily; and that England would become the instrument, in the hand of Providence, of civilizing, elevating, and Christianizing the whole world.

89. RECENT ARGUMENTS FOR PAPER MONEY[1]

1. I am not stuck on silver and gold as circulating mediums. A piece of paper is my ideal. Geologists have things so fine that they can estimate the quantities of silver and gold in the mountains, and the government should issue silver certificates to an amount equivalent to that estimate. It would be far safer, as it would be easy for a foreign nation to capture the coin in the treasury vaults at Washington; but the mountains they could not remove, even by all the faith they could muster.

2. We (speaking for the Farmers' Alliance) believe in the people making their own money; we believe in the Government, which is simply the agent of the people, issuing their money directly to them without going around Robin Hood's barn to find them.

3. If the people had twice as much currency in their pockets as now, their prosperity would be greatly increased.

4. I am in favor of more currency. We haven't enough currency per capita to do the business of the country. If we cannot increase the currency, I think somebody ought to issue more collateral. There is usually enough money if a man has the collateral.

5. My monetary system eliminates from money both the element of intrinsic value and the power to limit or control the value of things of use. I propose that the Government only shall issue money for the public use. In order to do this, I would have it issue immediately 500,000,000 new treasury notes of the denomination of one dollar each. So much of this amount as was necessary the Government should loan to the people; 10 per cent of each loan to be paid back each year; 9 per cent to be applied to the extinction of the principal, 1 per cent covering the interest. In that way it would be possible to redeem every mortgaged farm in the land within fifteen years.

6. Banks should not be allowed to issue notes. These should be printed and put out by the Government. The tariff should be reduced till there is a deficit in the treasury, and then greenbacks should be printed and issued to pay all claimants. These should not be redeemable in metal money. Each bill should bear the legend, "One dollar, receivable for all dues and debts." This would make it receivable for all taxes and import duties, and a legal tender. This would keep it perpetually at par.

7. Tens of thousands of our farmers have been unfortunate, and can never get out of debt without special relief. I would enact a law

[1] Adapted from *Century Magazine*, XLII (1891), 310–11.

stopping the big interest they have agreed to pay, and substituting a debt at 1 per cent interest. It would be done in this way: Suppose I owe you $5,000 and accumulated interest on my farm. This new law would direct you to add the interest to the principal, and go to the treasury of my county and file the mortgage and an abstract of the property, and get a check on the nearest bank for the entire debt. That would satisfy you. Then the county treasurer makes a draft on the United States treasurer for the money, and gets it in crisp new bills. That satisfies him. The United States treasurer accepts the mortgage on the farm—providing it is worth the amount of the mortgage—and sends word to me when the 1 per cent interest is due. Is not that simple? It is the first news I have had of the transfer of the debt. That ought to suit everybody.

B. History of Government Paper Money

(1) SOME EARLY EXPERIENCES

90. THE FRENCH ASSIGNATS AND MANDATS[1]

One of the first and most serious troubles which confronted the republic established by the French Revolution of 1789 was the scarcity of money. This was due to many causes, but chiefly, says Thiers, to the "want of confidence occasioned by the disturbances." The same authority adds the following general truth about circulation, which is applicable to all countries and in all times: "Specie is apparent by the circulation. When confidence prevails, the activity of exchange is extreme; money moves about rapidly, is seen everywhere, and is believed to be more considerable because it is more serviceable; but when political commotions create alarm, capital languishes, specie moves slowly; it is frequently hoarded, and complaints are unjustly made of its absence." To increase the supply of circulating medium it was proposed that the National Assembly issue paper money based on the Church lands which had been confiscated by the Government. These lands were yielding no revenue, but were a heavy burden. The money, to be called assignats, was really a form of titles to the confiscated lands; for it was receivable in payment for them, and was designed, in addition to furnishing revenue to the Government, to bring about a distribution of those lands among the people. The

[1] Adapted from *Century Magazine*, XLIV(1892), 791–93.

debates of the National Assembly upon the proposition showed that John Law's experiment had not been entirely forgotten. There was strong opposition, but it was overcome by the usual arguments in favor of cheap money. "Paper money," said one of the advocates of the assignats, "under a despotism is dangerous; it favors corruption: but in a nation constitutionally governed, which takes care of its own notes, which determines their number and use, that danger no longer exists."

These curious arguments carried the day in the National Assembly, and a first issue of assignats, to the value of 400,000,000 francs, was issued in December, 1789. They bore interest, and were made payable at sight, but no interest was ever paid, and subsequent issues had no interest provision. The first issue represented about one-fifth of the total value of the confiscated lands.

Yet with this solid basis of value upon which to rest, the assignats never circulated at par. A few months after the first issue demands began to be made for a second issue, as is invariably the case in all experiments of this kind. Talleyrand opposed the second issue in a speech of great ability, many of whose passages have passed into economic literature as model statements of fundamental monetary principles. "The assignat," he said, "considered as a title of credit, has a positive and material value; this value of the assignat is precisely the same as that of the land which it represents, but still it must be admitted, above all, that never will any national paper be upon a par with the metals; never will the supplementary sign of the first representative sign of wealth have the exact value of its model; the very title proves want, and want spreads alarm and distrust around it." And again: "You can arrange it so that people shall be forced to take a thousand francs in paper for a thousand francs in specie, but you never can arrange it so that the people shall be obliged to give a thousand francs in specie for a thousand francs in paper." Still again: "Assignat money, however safe, however solid it may be, is an abstraction of paper money; it is consequently but the free or forced sign, not of wealth, but merely of credit." In answer to the arguments of Talleyrand, the most effective, because most "taking," argument, if argument it can be called, was the following by Mirabeau: "It is in vain to compare assignats, secured on the solid basis of these domains, to an ordinary paper currency possessing a forced circulation. They represent real property, the most secure of all possessions, the land on which we tread."

This resounding phrase of Mirabeau carried the day in the National Assembly, and in September, 1790, a second issue of assignats, to the value of 800,000,000 francs, bearing no interest, was ordered.

The decree for this second issue contained a pledge that in no case should the amount of assignats exceed twelve hundred millions. But the nation was drunk with its own stimulant, and pledges were of no value. In June, 1791, a third issue of 600,000,000 was ordered. This was followed soon afterward by a fourth issue of 300,000,000, and by a new pledge that the total amount should never be allowed to exceed sixteen hundred millions. But this pledge, like two others that had been made before it, was broken as soon as a demand for more issues became irresistible. Fresh issues followed one another in rapid succession in 1792, and at the close of that year an official statement was put forth that a total of thirty-four hundred millions had been issued, of which six hundred millions had been destroyed, leaving twenty-eight hundred millions in circulation.

Specie had disappeared from circulation soon after the second issue, and the value of the assignats began to go steadily and rapidly downward. Business and industry soon felt the effects, and the inevitable collapse followed. Ex-President Andrew D. White, whose tract, *Paper Money Inflation in France*, is the most admirable and complete statement of this experience which has been published, says of the situation at this stage: "What the bigotry of Louis XIV, and the shiftlessness of Louis XV, could not do in nearly a century, was accomplished by this tampering with the currency in a few months. Everything that tariffs and custom-houses could do was done. Still the great manufactories of Normandy were closed; those of the rest of the kingdom speedily followed, and vast numbers of workmen, in all parts of the country, were thrown out of employment.

"In the spring of 1791 no one knew whether a piece of paper money, representing 100 francs, would, a month later, have a purchasing power of 100 francs, or 90 francs, or 80, or 60. The result was that capitalists declined to embark their means in business. Enterprise received a mortal blow. Demand for labor was still further diminished. The business of France dwindled into a mere living from hand to mouth. This state of things, too, while it bore heavily against the interests of the moneyed classes, was still more ruinous to those in more moderate, and most of all to those in straitened, circumstances. With the masses of the people the purchase of every article of supply became a speculation—a speculation in which the professional specu-

lator had an immense advantage over the buyer. Says the most brilliant apologist for French Revolutionary statesmanship, 'Commerce was dead; betting took its place.'"

In the early part of 1792 the assignat was 30 per cent below par. In the following year it had fallen to 67 per cent below par. A basis for further issues was secured by the confiscation of lands of emigrant nobles, and a flood of assignats poured forth upon the country in steadily increasing volume. Before the close of 1794 seven thousand millions had been issued, and the year 1796 opened with a total issue of forty-five thousand millions, of which thirty-six thousand millions were in actual circulation. By February of that year the total issue had advanced to 45,500,000,000, and the value had dropped to one two-hundred-and-sixty-fifth part of their nominal value. A note professing to be worth about $20 of our money was worth about six cents.

The Government now came forward with a new scheme, offering to redeem the assignats, on the basis of 30 to 1, for mandats, a new form of paper money, which entitled the holder to take immediate possession, at their estimated value, of any of the lands pledged by the assignats. Eight hundred millions in mandats were issued, to be exchanged for the assignats, and the plates for printing the latter were destroyed. Six hundred millions more of mandats were issued for the public service. At first the mandats circulated at as high as 80 per cent of their nominal value, but additional issues sent them down in value even more rapidly than the assignats had fallen, and in a very short time they were worth only one-thousandth part of their nominal value. It was evident that the end had come. Before the assignats were withdrawn, the Government resorted to various expedients to hold up their value by legislative decrees. The use of coin was prohibited; a maximum price in assignats was fixed for commodities by law; the purchase of specie was forbidden under penalty of imprisonment in irons for six years; and the sale of assignats below their nominal value was forbidden under penalty of imprisonment for twenty years in chains. Investment of capital in foreign countries was punishable with death. All these efforts were as futile as similar efforts had been in John Law's time. The value of the assignats went steadily down. Bread riots broke out in Paris, and the Government was compelled to supply the capital with provisions. When the mandats fell, as the assignats had fallen before

them, the Government was convinced that it was useless to try to give value to valueless paper by simply printing more paper and calling it by another name; and on July 1, 1796, it swept away the whole mass by issuing a decree authorizing everybody to transact business in any money he chose. "No sooner," says Mr. McLeod, in his *Economical Philosophy*, "was this great blow struck at the paper currency, of making it pass at its current value, than specie immediately reappeared in circulation." In commenting upon this second experience of France with paper money, which lasted for about six years, Professor A. L. Perry, in his *Elements of Political Economy*, thus graphically and truthfully sums up the consequences: "The distress and consternation into which a country falls when its current measure of services is disturbed and destroyed, as it was in this case, is past all powers of description. The prisons and the guillotine did not compare with the assignats in causing suffering during those six years. This example is significant because it shows the powerlessness of even the strongest and most unscrupulous governments to regulate the value of anything. The assignats were depreciating during the very months in which Robespierre and the Committee of Public Safety were wielding the power of life and death in France with terrific energy. They did their utmost to stop the sinking of the Revolutionary paper. But value knows its own laws, and follows them in spite of decrees and penalties."

91. SOUTH CAROLINA'S FIRST PAPER MONEY[1]

ANONYMOUS

The first paper money issued in the Province of South Carolina was by virtue of an Act of the General Assembly, May 8, 1703, entitled "An Act for Raising the Sume of four thousand pounds, on the real and personal estates, and of and from the profits and revenues, of the inhabitants of this Province, and establishing bills of credit, for satisfying the debts due by the public on account of the late expedition of St. Augustine."

By this Act £6,000 in bills of credit were stamped and issued, bearing an interest of 12 per cent per annum from the date of the bill to the time the same was paid to the public receiver; and the said bills were to be sunk and cancelled by the tax raised by this Act;

[1] Adapted from *Sound Currency*, V (1898), No. 4, pp. 34–44. Evidently written in 1739 by some unknown person.

£2,000 to be raised and paid on February 1, 1703; £2,000 on February 1, 1704; and the remainder by means of duties arising by an Act made on May 6, 1703, entitled "an Act for laying an imposition on furrs, skins, liquors, and other goods and merchandize, imported into and exported out of this Province."

By an Act of December 20, 1703, the public receiver is directed to cancel £3,000 of the former bills when the tax assessments shall be raised; and £1,000 in bills at 12 per cent is continued current, any limitation in the former Act notwithstanding.

And by an Act, passed November 4, 1704, reciting "that a great part of the money and bills appropriated by the before recited Acts for particular uses, viz., calling in and sinking the bills of credit, had, for the immediate service and necessary defence of the Province, been, by order of the General Assembly, made use of for other purposes than they were appointed for and appropriated to by the said Acts," it was enacted that such payments should be deemed legal, and the receiver was indemnified and acquitted, as fully as if he had duly applied the same to the uses appointed by the Acts first recited.

On the same day, November 4, 1704, another Act was passed for raising the sum of £4,000 on the real and personal estates, and of and from the profits and revenues of the inhabitants of the Province, to pay and cancel the bills of credit now outstanding. This Act recites "that the urgent necessity for fortifying Charles Town, and other occasions for the defence of the Province against the common enemy, had exhausted the public treasury, and prevented the calling in and sinking the bills of credit. Therefore it was enacted that the bills should continue current, and a tender in law, with the interest of 12 per cent until March 10, 1705; and a tax of £4,000 was imposed, payable on the March 9, 1705, and appropriated for calling in the bills of credit which were then outstanding. A penalty was laid on the public treasurer, that if he misapplied any of the sums so appropriated, he should forfeit treble the value of the sum misapplied, and should be rendered incapable of holding any office in the government.

But after the passing of this Act, another Act was made, on April 9, 1706, entitled "an Act for the sooner and more secure payment of the debts owing by the public, and for the continuing the currency of the bills of credit, commonly called country bills." By this Act, all taxes laid by any former Acts of Assembly, and the duties imposed by the Act passed May 6, 1703, were continued and made current, and three-fourths of the duties before mentioned (after the payment

of the public debts and the clergy's salaries) were appropriated toward the sinking and discharging the bills of credit, and the remaining fourth part of the said duties were to be disposed of by order of the General Assembly, for the contingencies of the government.

The next Act, July 5, 1707, provides for an additional emission of paper currency, "for satisfying the debts due by the public on account of the late invasion; for finishing the fortifications about Charles Town; to revive the several Acts therein mentioned; and to call in the former bills of credit." By this Act, not only £8,000 in new bills were issued for payment of the public debts, but the old bills which were outstanding were exchanged for new bills, and were by that means continued current, and made a tender in all payments. This Act was made of force for two years, but was continued for four years, by an Act passed July 12, 1707. This date was shortly extended for another year; and then "to the end of the next session of the General Assembly." By another Act passed February 14, 1707, entitled "an Act for the better enabling the Governour to raise a force against our public enemies, and to raise money to defray the charges of the same, by establishing bills of credit," a further sum of £3,000 was issued in bills of credit, £2,000 of which was to exchange part of the old bills, which were too large, and the other £1,000 was to remain in the treasury, to answer the emergencies of the government.

A very short time after passing this Act, on April 24, 1708, an Act was passed for raising a further sum of £5,000 in bills of credit, to be ready in the public receiver's hands to answer all emergencies; it provided a fund to sink them, and the duties imposed by the former Acts were continued to July 12, 1714, and from thence to the end of the next session of the General Assembly. On the 1st day of March, 1710, an Act was passed for raising the sum of £3,000 in small bills, for sinking £1,000 of the former bills; and £2,000 to be applied in the payment of the debts due from the public.

The next emission of paper bills of credit was said to be in consideration of the great expense the Province had been at in building fortifications, and for assisting the inhabitants of North Carolina against the Tusquerora Indians, who were then at war with them, with twenty white men and such Indians as could be raised. On these considerations an Act passed November 10, 1711, "for raising the sum of £4,000, by laying sundry additional duties on liquors and other goods and merchandises, for carrying on an expedition against

the northern Indians, enemies to the Crown of Great Britain, and for aiding and assisting the inhabitants of North Carolina, who are now actually invaded by the said Indians."

The Bank Act of June 7, 1712, was "an Act for raising the sum of £52,000, by stamping and establishing new bills of credit, and putting the same out to interest, in order to call in and sink the former bills of credit." From the year 1703 to the time of passing this Act, by the various emissions of bills of credit at the several times hereinbefore mentioned, there had been issued £29,000, which, either by a partial application of the funds appropriated for sinking them, by the exchanging old bills for new, or by bills lost or destroyed by accident, were, at the time of passing this Act, reduced to £16,000, exclusive of the Tusquerora bills, amounting to £4,000.

In the preamble of the Bank Act it is declared "that the public debts, occasioned by the vast charges to which the Province for several years past had been subject and liable . . . . were become at last so greatly burthensome and considerable, that there was no hope or probability that the same could be discharged in any tolerable time, by the public duties and incomes of this Province; and that it was also impracticable (especially at that time) to discharge and defray the same by the ordinary method of imposing a tax on the estates, stocks, and abilities of the inhabitants of the Province, without pressing too hard upon them"; therefore £16,000 was issued for exchanging the old bills; £32,000 to be let out at interest, payable in 12 years, at such a rate as would sink both principal and interest at the end of that term; £4,000 was also directed to be issued for the contingencies of the government. These together with the Tusquerora bills made a total of £56,000. This was 9 years from the date of the first issue.

In 1715 a new series of emissions begins. By an Act of August 27, a further sum of £30,000 in bills of credit were stamped and issued; and it was provided by this Act, that in order to strengthen the currency of the bills newly issued, a fund should be provided for sinking the same by a tax; and accordingly, on the same day there was passed an "Act to raise the sum of £30,000 on the real and personal estates of the inhabitants of this Province, in order to sink the sum of £30,000 in bills of credit."

But within a year another Act was passed, to continue the currency of £30,000 in bills of credit, and also to stamp the sum of

£15,000 in bills of credit. In the reciting part of this Act it is taken notice, "that by reason of the late troubles and confusions occasioned by the Indian war the tax appointed to be raised by the Act made 27th August, 1715, for sinking the said sum £30,000 in bills of credit lately issued, is therefore repealed and declared void." £15,000 additional issues were sanctioned. The taxation principle again was not forgotten; and an Act was promptly passed for raising £95,000, a large portion of which was to be used in cancelling the outstanding paper. As before, however, no bills were cancelled, and a succeeding act therefore continued them. This Act of December 11, 1717, also stated that "it has been found by experience that the multiplicity of bills of credit had been the cause of the ruin of our trade and commerce, and had been the great evil of this Province; and that it ought, with all expedition, to be remedied." It was therefore the resolution of both Houses of Assembly that the above-mentioned bills of credit, the bank bills excepted, amounting to £54,000, should be sunk on or before the 2d Tuesday in March, 1718. But by an Act passed 20th February, 1718, entitled "an Act for raising the sum of £70,000 on lands and negroes, for defraying the public debts, sinking the public orders, and for calling in and cancelling the sum of £30,000 which is now outstanding in bills of credit, over and besides the bank bills," the last above mentioned is repealed and made void, and a new provision is made for sinking the bills by taxes, to be paid at three periods, with liberty that such taxes might be paid in rice at certain prices, varying with the date of payment.

Toward the latter end of the year 1719, the people of South Carolina threw off the government of the Lords Proprietors, and chose a new Governour and Council, and during those confused times new currency principles were developed. New bills were issued, payable in rice at 30s. per hundred. The old bills of credit were made legal tender in all payments, thus putting them all on an equality. It was also provided, September 21, 1721, that the sum of £4,000 of the said bills of credit, then outstanding, should yearly, and every year, be sunk, called in, and cancelled, by a tax to be raised on lands and slaves, over and above the several sums of money to be yearly raised for the support of the Government. And liberty was given by this Act to all persons to pay their taxes in these paper bills of credit.

The reasons given for this new departure, as they are set down in the preamble, are as follows, to wit: "that it was very uncertain what quantity of bills of credit were then current, many of them being

counterfeited, and they being then so old, that it was absolutely necessary that they should be called in and reprinted. And that by reason of the great floods, many of the inhabitants had lost their crops, and most had suffered so much by the same, that they were rendered incapable to pay the yearly rice tax necessary to be raised for the support of the Government." At this time the total outstanding issues had reached £120,000. The exchange rates in English money were at a heavy premium, about five to one.

After his Majesty had purchased the soil of this Province, the late Governour Johnson was appointed and received from his Majesty several instructions relating to the paper bills of credit. It was first provided that the revenues appropriated to the discharge of old bills of credit should be used for seven years for the purchase and laying out of townships, and for the purchasing of tools, provisions, and other necessaries "for any poor Protestants that shall be desirous to settle in our said Province." This was made law by an Act of August 20, 1731, and was adhered to for several years.

The second instruction of Governour Johnson led to the act of August 20, 1731, for calling in, reprinting, and exchanging all paper bills of credit, the amount then outstanding being £106,500. This act is significant because no fund was appointed or established for the gradual repaying and cancelling of the bills. At this time it took approximately £6 in paper to equal £1 in English money. By 1739 (the date of writing this article) the rate of exchange was seven to one.

92. SUMMARY OF COLONIAL ISSUES[1]

BY HORACE WHITE

There were three main causes or excuses for the issue of colonial bills of credit: (1) war expenses; (2) loans to individuals; (3) ordinary expenses of government. There were other pretexts. One of the most common was the replacement of old and worn bills, which always left a margin over for general expenses, and sometimes a very large margin.

Colonial bills of credit were of several different kinds, viz., (1) interest-bearing, not legal tender (these were unobjectionable); (2) the same, legal tender for the principal and sometimes for the interest also; (3) non-interest-bearing, legal tender for all purposes; (4) the same, legal tender for future but not for past debts; (5) the

[1]Adapted from *Money and Banking*, pp. 83–84, (Ginn & Co., 1895.)

same, not legal tender between private persons, but receivable for all public dues.

Interest-bearing bills were soon abandoned and the tendency in all the colonies was to make the bills legal tender for all purposes. But for the restraints imposed by the mother-country probably all would have been legal tender for all purposes, and the issues would have been much larger in amount than they were.

The usual course of events where bills of credit were issued (but with some variations) was as follows: (1) emission; (2) disappearance of specie; (3) counterfeiting; (4) wearing out of bills; (5) calling in and replacing worn and counterfeited issues with new ones; (6) extending the time for old ones to run, especially those that had been placed on loan; (7) depreciation; (8) repudiation of early issues in part and the emission of others called "new tenor."

(2) PAPER MONEY AS A MEANS OF WAR FINANCE

93. THE ISSUE OF CONTINENTAL BILLS OF CREDIT[1]

BY CHARLES J. BULLOCK

Within six weeks after the Continental Congress convened on May 10, 1775, the issue of bills of credit as a means of financing the Revolution was determined upon. Before the close of 1775 Congress issued $6,000,000 of paper money and urged the states to redeem their respective quotas of the bills by imposing taxes. But the states refused to resort to taxation, except for inconsiderable sums, and continued to emit increasing amounts of their own paper. After unsuccessful efforts to raise revenue by such expedients as a lottery and a domestic loan, larger continental issues had to be emitted. In 1777, Congress began to make requisitions upon the states for money that was to be raised by taxes which only the states could impose; but these requests met with such a partial compliance that further issues of paper were placed in circulation. Several years elapsed before the states instituted effective systems of taxation, and little assistance was secured from this source. Loans and subsidies furnished by France brought considerable sums into the federal treasury; but more and more paper was emitted, the amounts of the issues increasing as the depreciation of the currency progressed. By the end of 1779, Congress had issued $241,500,000 of the continental bills of credit; while the states had gradually increased their emissions to more than

[1] Adapted from *The Monetary History of the United States*, pp. 64–65. (The Macmillan Co., 1900.)

$200,000,000. At the opening of 1781, a dollar in paper was worth less than two cents in specie, and the currency soon afterward sank in value to such an extent that it became practically worthless.

94. EFFECTS OF CONTINENTAL CURRENCY ON DEBTORS AND CREDITORS[1]

By DAVID RAMSAY

The aged who had retired from the scenes of active business, to enjoy the fruits of their industry, found their substance melting away to a mere pittance, insufficient for their support. The widow who lived comfortably on the bequests of a deceased husband experienced a frustration of all his well-meant tenderness. The laws of the country interposed, and compelled her to receive a shilling where a pound was her due. The blooming virgin who had grown up with an unquestionable title to a liberal patrimony was legally stripped of everything but her personal charms and virtues. The hapless orphan, instead of receiving from the hands of an executor a competency to set out in business, was obliged to give a final discharge on the payment of 6*d*. in the pound. In many instances, the earnings of a long life of care and diligence were, in the space of a few years, reduced to a trifling sum. A few persons escaped these affecting calamities, by secretly transferring their bonds, or by flying from the presence or neighborhood of their debtors. A hog or two would pay for a slave; a few cattle for a comfortable house; and a good horse for an improved plantation. A small part of the productions of a farm would discharge the long-outstanding accounts, due from its owner. The dreams of the golden age were realized to the poor man and the debtor, but unfortunately what these gained was just so much taken from others.

95. DEMORALIZING INFLUENCE OF THE CONTINENTAL CURRENCY[2]

By PELATIAH WEBSTER

The fatal error, that the credit and currency of the Continental money could be kept up and supported by acts of compulsion, entered so deep into the mind of Congress and of all departments of administration throughout the States that no considerations of justice,

[1] Adapted from *History of American Revolution* (1789), II, 134–35.

[2] Adapted from *Strictures on Tender Acts* (1780).

religion, or policy, or even experience of its utter inefficacy, could eradicate it; it seemed to be a kind of obstinate delirium, totally deaf to every argument drawn from justice and right, from its natural tendency and mischief, from common sense, and even common safety.

Congress began as early as January 11, 1776, to hold up and recommend this maxim of maniasm, when Continental money was but five months old. Congress then resolved, that "whoever should refuse to receive in payment Continental bills, &c., should be deemed and treated as an enemy of his country, and be precluded from all trade and intercourse with the inhabitants," &c., i.e., should be outlawed; which is the severest penalty (except of life and limb) known in our laws.

This ruinous principle was continued in practice for five successive years, and appeared in all shapes and forms, i.e., in tender acts, in limitations of prices, in awful and threatening declarations, in penal laws with dreadful and ruinous punishments, and in every other way that could be devised, and all executed with a relentless severity by the highest authorities then in being, viz., by Congress, by Assemblies and Conventions of the States, by Committees of Inspection (whose power in those days were nearly sovereign), and even by military force; and tho' men of all descriptions stood trembling before this monster of force, without daring to lift a hand against it, during all this period, yet its unrestrained energy ever proved ineffectual to its purposes, but in every instance increased the evils it was designed to remedy, and destroyed the benefits it was intended to promote; at best its utmost effect was like that of water sprinkled on a blacksmith's forge, which indeed deadens the flame for a moment, but never fails to increase the heat and force of the internal fire. Many thousand families of full and easy fortune were ruined by these fatal measures, and lie in ruins to this day, without the least benefit to the country, or to the great and noble cause in which we were then engaged.

It has polluted the equity of our laws; turned them into engines of oppression and wrong; corrupted the justice of our public administration; destroyed the fortunes of thousands who had most confidence in it, and has gone far to destroy the morality of our people.

96. THE SPIRIT OF THE TIMES[1]

SONS OF BOSTON! SLEEP NO LONGER!

Wednesday, June 16, 1779.

You are requested to meet on the floor of the Old Scotch Meeting House to-morrow morning, at 9 o'clock, at which time the bells will ring.

Rouse and catch the Philadelphia spirit; rid the community of those monopolizers and extortionators, who, like canker worms, are gnawing upon your vitals. They are reducing the currency to waste paper, by refusing to take it for many articles; the infection is dangerous. We have borne with such wretches, but will bear no longer. Public example, at this time, would be public benefits! You then that have articles to sell, lower your prices; you that have houses to let, refuse not the currency for rent; for inspired with the spirit of those heroes and patriots, who have struggled and bled for their country, and moved with the cries and distress of the widow, the orphan and the necessitous, Boston shall no longer be your place of security! Ye inhabitants of Nantucket, who first introduced the accursed crime of refusing paper money, quit the place, or destruction shall attend your property, and your persons be the object of

VENGEANCE.

N.B. Lawyers, keep yourselves to yourselves. It is our determination to support the reputable merchant and fair trader.

97. THE EXCUSE FOR CONTINENTAL CURRENCY[2]

BY CHARLES J. BULLOCK

The Continental Congress has often been blamed for resorting to the disastrous expedient of issuing paper money, but the financial policy of the Revolution was practically settled by the provincial assemblies. Congress did not convene in Philadelphia until May 10, and did not determine to issue bills of credit until June 22. Meanwhile, Connecticut had decided in April to emit paper money; and Massachusetts had adopted a similar measure seven days before Congress assembled. Before the month of May had expired, Rhode

[1] From Phillips, *Historical Sketches of the Paper Currency*, p. 128.

[2] Adapted from *The Monetary History of the United States*, pp. 60–63. (The Macmillan Co., 1900.)

Island pursued a similar course; and, in June, New Hampshire, Pennsylvania, and South Carolina followed suit. During the next few months all the other colonies, without a single exception, decided to provide the sinews of war by means of bills of credit.

Although the Continental Congress was a revolutionary assembly which might conceivably have attempted to assume all the authority of a strong national government, it is almost certain that such a course would have resulted in the downfall of that body. It was in reality a consultative assemblage, whose powers were limited by the wishes of the several colonies. In order to exist and to maintain any respect for its authority, Congress had to be governed by the temper of its constituents; and, in respect to the proper financial policy, the wishes of the people of America had already been indicated with sufficient clearness by the action of the various provincial assemblies. These bodies had commonly pledged the half or the whole of their estates for the preservation of their sacred liberties, but they had shown a uniform determination to raise money by sacrificing only the estates of those people who were helpless to avoid the losses of a depreciating currency. It is perfectly true that the expenses of any war must, apart from help secured in foreign countries, be defrayed out of the annual produce of the industry of a people; and that taxation is the safest, surest, and wisest method of meeting such expenditures. But the hands of Congress seem to have been bound by its lack of authority and the manifest desires of the people. The New York assembly, and probably some others, had conveyed to the men gathered in Philadelphia explicit statements of their sentiments; and the actions of various provincial congresses in actually issuing paper were more significant than any words.

Thus the Continental Congress and the individual colonies of states, undertook to carry on the struggle for independence by the aid of bills of credit. The dangers of such a course were fully appreciated by many men, but the temper of the great body of the people could not be mistaken. Recent historians have investigated with great care and entire fairness the extent and character of the opposition which the revolutionary movement encountered from many of the most intelligent and respectable persons in America, and have assured us that earlier writers have failed to do justice to the strength and honesty of that party which considered separation from the mother-country to be unnecessary and undesirable. With the history of colonial paper currencies before us, it is reasonable to believe that

the fear of reckless issues of bills of credit was certainly one cause for the hostile attitude assumed by a large portion of the conservative, propertied classes.

98. PAPER CURRENCY OF THE CONFEDERACY[1]

By G. C. EGGLESTON

The history of the South during the Civil War furnishes one of the best illustrations on record of the disastrous consequences of relying mainly upon the issue of irredeemable paper currency as a means of financing war. There were some slight tax levies, it is true, and some borrowing through the use of bonds, but paper money was looked to from the first as the chief fiscal resource of the government. There was only one difficulty incident to the process of printing treasury notes enough to meet all the expenses of the government, namely, the impossibility of having the notes signed in the Treasury Department as fast as they were needed. There happened, however, to be several thousand young ladies in Richmond willing to accept light and remunerative employment in their homes, and as it was really a matter of small moment whose name the notes bore, they were given out in sheets to these young ladies, who signed and returned them for a consideration. I shall not undertake to guess how many Confederate treasury notes were issued. Indeed, I am credibly informed by a gentleman who was high in office in the Treasury Department, that even the secretary himself did not certainly know. The acts of Congress authorizing issues of currency were the hastily formulated thought of a not very wise body of men, and my informant tells me that they were frequently susceptible of widely different construction by different officials. However that may be, it was clearly out of the power of the government ever to redeem the notes, and whatever may have been the state of affairs within the Treasury, nobody outside its precincts ever cared to muddle his head in an attempt to get at exact figures.

We knew only that money was astonishingly abundant. Provisions fell short sometimes, and the supply of clothing was not always as large as we should have liked, but nobody found it difficult to get money enough. It was to be had almost for the asking.

Money was so easily got, and its value was so utterly uncertain, that we were never able to determine what was a fair price for anything. We fell into the habit of paying whatever was asked, knowing

[1] Adapted from *A Rebel's Recollections*, pp. 78–105. (Hurd & Houghton, 1875.)

that tomorrow we should have to pay more. Speculation became the easiest and surest thing imaginable. The speculator saw no risks of loss. Every article of merchandise rose in value every day, and to buy anything this week and sell it next was to make an enormous profit quite as a matter of course.

Naturally enough, speculation soon fell into very bad repute, and the epithet "speculator" came to be considered the most opprobrious in the whole vocabulary of invective. The feeling was universal that the speculators were fattening upon the necessities of the country and the sufferings of the people. Nearly all mercantile business was regarded with suspicion, and much of it fell into the hands of people with no reputations to lose, a fact which certainly did not tend to relieve the community in the matter of high prices.

The prices which obtained were almost fabulous, and singularly enough there seemed to be no sort of ratio between the values of different articles. I bought coffee at forty dollars and tea at thirty dollars a pound on the same day. My dinner at a hotel cost me twenty dollars, while five dollars gained me a seat in the dress circle of the theater. I paid one dollar the next morning for a copy of the *Examiner*, but I might have got the *Whig*, *Dispatch*, *Enquirer*, or *Sentinel* for half that sum. For some wretched tallow candles I paid ten dollars a pound. The utter absence of proportion between these several prices is apparent, and I know of no way of explaining it except upon the theory that the unstable character of the money had superinduced a reckless disregard of all value on the part of both buyers and sellers. A facetious friend used to say prices were so high that nobody could see them, and that they "got mixed for want of supervision." He held, however, that the difference between the old and the new order of things was a trifling one. "Before the war," he said, "I went to market with the money in my pocket, and brought back my purchases in a basket; now I take the money in the basket, and bring the things home in my pocket."

In the winter of 1863–64 Congress became aware of the fact that prices were higher than they should be under a sound currency. If Congress suspected this at any earlier date, there is nothing in the proceedings of that body to indicate it. Now, however, the newspapers were calling attention to an uncommonly ugly phase of the matter, and reminding Congress that what the government bought with a currency depreciated to less than 1 per cent of its face, the government must some day pay for in gold at par. The lawgivers

took the alarm and sat themselves down to devise a remedy for the evil condition of affairs. With that infantile simplicity which characterized nearly all the doings and quite all the financial legislation of the Richmond Congress, it was decided that the very best way to enhance the value of the currency was to depreciate it still further by a declaratory statute, and then to issue a good deal more of it. The act set a day, after which the currency already in circulation should be worth only two-thirds of its face, at which rate it was made convertible into notes of the new issue, which some, at least, of the members of Congress were innocent enough to believe would be worth very nearly their par value. This measure was intended, of course, to compel the funding of the currency, and it had that effect to some extent, without doubt. Much of the old currency remained in circulation, however, even after the new notes were issued. For a time people calculated the discount, in passing and receiving the old paper, but as the new notes showed an undiminished tendency to still further depreciation, there were people, not a few, who spared themselves the trouble of making the distinction.

The financial condition got steadily worse to the end of the war. I believe the highest price, relatively, I ever saw paid, was for a pair of boots. A cavalry officer, entering the little country store, found there one pair of boots which fitted him. He inquired the price. "Two hundred dollars," said the merchant. A five hundred dollar bill was offered, but the merchant having no smaller bills, could not change it. "Never mind," said the cavalier, "I'll take the boots anyhow. Keep the change; I never let a little matter of three hundred dollars stand in the way of a trade."

Will the reader believe that with gold at a hundred and twenty-five for one, or 12,400 per cent premium; when every day made the hopelessness of the struggle more apparent; when our last man was in the field; when the resources of the country were visibly at an end, there were financial theorists who honestly believed that by a mere trick of legislation the currency could be brought back to par? I heard some of these people explain their plan during a two days' stay in Richmond. Gold, they said, is an inconvenient currency always, and nobody wants it, except as a basis. The government has some gold—several millions, in fact—and if Congress will only be bold enough to declare the treasury notes redeemable at par in coin, we shall have no further difficulty with our finances. So long as notes are redeemable in gold at the option of the holder, nobody wants

them redeemed. Let the government say to the people, We will redeem the currency whenever you wish, and nobody except a few timid and unpatriotic people will care to change their convenient for an inconvenient money. The gold which the government holds will suffice to satisfy these timid ones, and there will be an end of high prices and depreciated currency. The government can then issue as much more currency as circumstances may make necessary, and strong in our confidence in ourselves we shall be the richest people on earth; we shall have created the untold wealth which our currency represents.

99. A SAMPLE CONFEDERATE NOTE

100. REASONS FOR THE ISSUE OF THE GREENBACKS[1]

By WESLEY C. MITCHELL

The suspension of specie payments by the New York banks on December 30, 1861, was immediately followed, of necessity, by the suspension of like payments by the national treasury, and on the very day that the New York banks suspended specie payments, a proposal was made in Congress that the United States resort to the issue of an irredeemable paper currency of legal-tender notes.

The opposition to the bill called attention prominently to the lessons of experience. Could it be shown that the resort to an inconvertible paper currency had always been attended in the past with evil results, a strong presumption would be created against the wis-

[1] Adapted from *A History of the Greenbacks*, pp. 44–66. (The University of Chicago Press, 1903.)

dom of a repetition of the experiment. Consequently rhetoric was employed to picture in vivid colors the unhappy consequences that had followed the issue of paper money by France during the Revolution, by England in the Napoleonic wars, by Austria, and Turkey, by Rhode Island in colonial days, by the Continental Congress in the War of Independence, and finally by the Confederate States, then fairly launched upon the paper-money policy.

To break the force of these historical parallels, which told so heavily against the bill, its supporters sought to show that causes, which under different conditions had led to depreciation, would not be operative in the case of the United States in 1862. Thus, it was said, the continental notes of the American Revolution depreciated because of the poverty of the country, which offered no security for their redemption; the vastly greater wealth of the nation in 1862 would prevent a repetition of the experience. The depreciation of the issues of Louis XIV was explained on the ground that France was then exhausted by heavy taxation to maintain a profligate court. The cases of the French Revolution and the Confederate States were accounted for by the fact that these governments were revolutionary. Some gentlemen even denied that depreciated currencies had proved evils. "It would be far from a blunder," said Senator Howe, "to say that the 'golden age' of England was during that long period when the only currency she knew was one of irredeemable paper"; and Mr. Kellogg declared the paper issues of the Revolution had increased confidence, clothed the army, and revived commerce. Another supporter of the bill tried to evade the historical argument by maintaining that the true lesson of experience was that of moderate issues. But no one seems to have taken these ingenious pleas very seriously, for it was easy to show that one of the striking lessons of experiments with paper money is that such moderation, which the issuer at first intends to observe, has almost invariably been soon forgotten.

If the argument from experience was strongly against the bill, the cognate economic argument was hardly less so. The opponents of paper issues assumed the offensive, declaring emphatically that the proposed legal-tender notes were certain to depreciate in value. Mr. Lovejoy said: "It is not in the power of this Congress . . . . to accomplish an impossibility in making something out of nothing. The piece of paper you stamp as five dollars is not five dollars, and it never will be, unless it is convertible into a five dollar gold piece; and to profess that it is, is simply a delusion and a fallacy."

Various shifts were tried to meet this attack. Mr. Kellogg boldly asserted that the legal-tender quality of the notes would prevent fluctuation of their value; but more faith was put in the reply that the total wealth of the country was security for the notes, and this security being ample the value of the paper would not decline. The rejoinder to this was first, that the security for the notes was not the total wealth of the people, but only such part of it as the government could obtain by taxation; and second, that though the security for ultimate redemption might be ample, the notes would nevertheless depreciate in value, if the holders were unable to secure immediate payment.

A different argument to show the improbability of depreciation was based by Thaddeus Stevens upon the quantity theory of money as expounded by McCulloch. "The value of legal-tender notes," said he, "depends on the amount issued compared with the business of the country. If a less quantity were issued than the usual and needed circulation, they would be more valuable than gold." The opponents of the bill replied, not by attacking the quantity theory, but by insisting that all experience showed that, after one issue of paper money had been made, other issues were sure to follow, until the currency became redundant and depreciated. "The experience of mankind," said Mr. Thomas, "shows the danger of entering upon this path; that boundaries are fixed only to be overrun; promises made only to be broken." "The same necessity," added Mr. Pomeroy, "which now requires the amount of inconvertible paper now authorized, will require sixty days hence a similar issue, and then another, each one requiring a larger nominal amount to represent the same intrinsic value." To such assertions, backed by the weight of historical evidence, the supporters of the bill could respond only that the case of the United States would be an exception; the American government would not yield, as other governments had done, to the temptation to make further issues.

Not content with showing the economic evils of a depreciated paper currency, the opponents of the bill denounced it roundly as immoral. To pay contractors and soldiers in depreciated money, they declared, was dishonorable. "The bill says to the world," asserted Mr. Horton, "that we are bankrupt, and we are not only weak, but we are not honest." The injustice, however, extended not only to creditors of the government, but to all persons who would be compelled to accept in payment money of less value than that

which they had contracted to receive. And by thus encouraging the debtor to defraud his creditor, urged Senator Fessenden, the bill would lower the moral standards of the people. To these charges, also, the promoters of the bill had little to say.

Upon the fiscal aspect of the bill the case of the opposition was hardly less clear. First, they declared, the resort to an irredeemable paper currency was a practical confession of bankruptcy, and would therefore injure the credit of the government, and make less favorable the conditions on which it could borrow. "We . . . . go out to the country," said Fessenden, "with the declaration that we are unable to pay or borrow at the present time, and such a confession is not likely to increase our credit." Second, it was pointed out that the depreciation of the currency would cause the prices of everything which the government had to buy to rise, and thus would vastly increase the cost of the war. As Senator Cowan put it, the government "might as well lose 25 per cent on the sale of her bonds, as to be obliged, in avoiding it, to pay 25 per cent more for everything she buys."

This discussion of the legal-tender paper currency produced in Congress the feeling that under ordinary circumstances such a proposal would be indefensible. The vigor with which the opposition had presented the case against the bill made a deep impression. On the other hand, the reasoning by which the supporters of the bill had sought to establish the constitutional power of Congress to make treasury notes a legal tender was felt to be inconclusive. The force of the telling argument from experience had not been broken; the probability of depreciation had not been disproved; no adequate reply had been found to the indictment of the bill on moral grounds; and, finally, it had not been denied that resort to paper issues would injure the credit of the government and increase the cost of the war. So generally was the objectionable character of the measure realized that Senator Fessenden could say: "All the opinions that I have heard expressed agree in this: that only with extreme reluctance, only with fear and trembling as to the consequences, can we have recourse to a measure like this of making our paper a legal tender in payment of debts."

And yet an argument was found that overcame the "extreme reluctance" of a majority of the members and induced them to vote for the bill. This argument was the plea of absolute necessity. It was to necessity that Mr. Spaulding had appealed in justification of his first draft of the legal-tender bill. In opening the debate in Congress

he repeated the argument with emphasis. "The bill before us," he said, "is a war measure, a measure of necessity and not of choice, presented . . . . to meet the most pressing demands upon the Treasury." The cry of necessity was taken up by the other supporters of the bill, who relied upon it to meet all the objections urged by the opposition.

That the assertion of necessity might carry the added force of official sanction, Secretary Chase was induced to send a note to the chairman of the Committee on Ways and Means to be read to the House. He wrote: "I have felt, nor do I wish to conceal that I now feel, a great aversion to making anything but coin a legal tender in payment of debts. It has been my anxious wish to avoid the necessity of such legislation. It is, however, at present impossible, in consequence of the large expenditures entailed by the war, and the suspension of the banks, to procure sufficient coin for disbursements, and it has therefore become indispensably necessary that we should resort to the issue of United States notes."

This letter made the bill an "administration measure," and so was an important factor in its success.

In replying to the plea of necessity, the opposition candidly admitted it would be better to issue a forced currency than to stop payment, provided there were no alternative. "If the necessity exists," said Senator Fessenden, "I have no hesitation upon the subject and shall have none. If there is nothing left for us to do but that, and that will effect the object, I am perfectly willing to do that." But that such was the case was emphatically denied. "It has been asserted . . . . with the utmost apparent sincerity," said Mr. Horton, "that this is a measure not of choice, but of necessity. But Mr. Chairman, that assertion is only reiterated, not proved. Where is the proof that this is a matter of necessity? There may be proofs abundant, but they have not been produced."

Not only did the opposition deny the necessity, but they were ready also with suggestions of other means of securing the needed funds. One suggestion was adequate war taxation. "Not a dollar of tax has been raised," said Mr. Thomas, "and yet we are talking of national bankruptcy, and launching upon a paper currency. I may be very dull, but I cannot see the necessity, or the wisdom, of such a course." It was by this time generally acknowledged that the omission to impose heavy taxes at the extra session of July, 1861, was a serious blunder which Congress should repair as soon as possible.

But the supporters of the bill argued that the pending situation could not be met by taxation, for the needs of the treasury were too pressing to wait until new taxes could be assessed and collected.

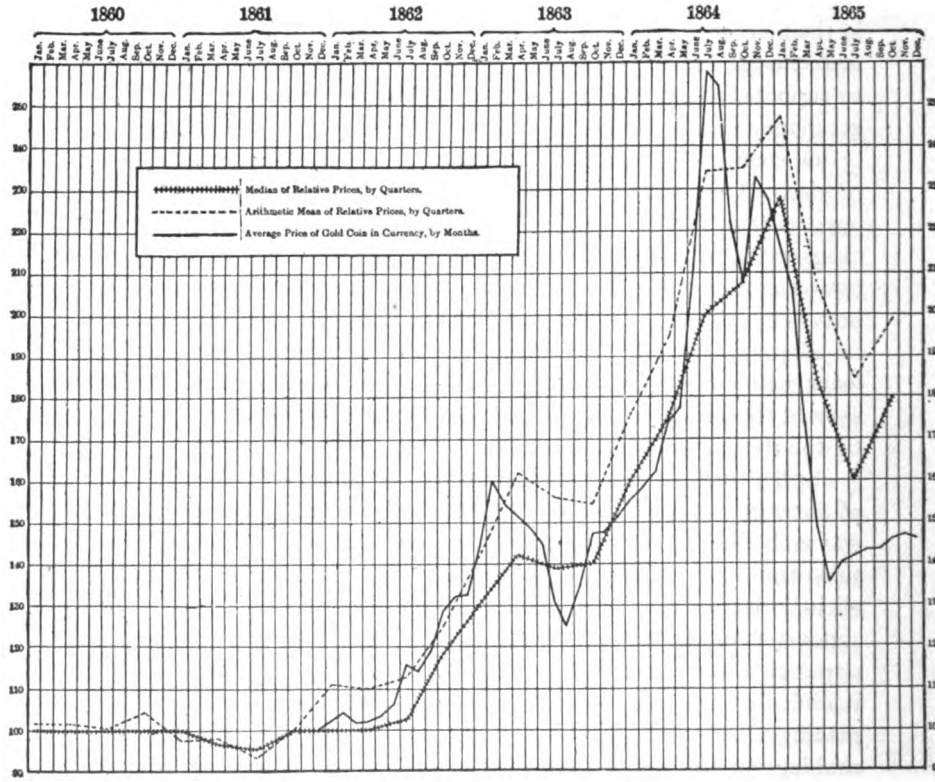
To this the rejoinder was made: If it will take too long to wait for the proceeds of taxes, let the government supply its immediate wants by selling bonds at their market value, and in the meantime frame a permanent system of taxation that will yield an adequate revenue. This plan was the same that the delegation of bankers had urged upon the secretary and the committee of Congress, and it encountered the same opposition. Senator Howe was unwilling, as Mr. Spaulding had been, that government bonds should be sold below par. "The experience of half a century," said he, "has demonstrated that the use of money is not worth more than 6 per cent; that sum the Government ought to pay." Senator Fessenden replied: "Money in the market is always worth what it will sell for. It is an article of merchandise like anything else, and the Government has no reason to suppose, unless it can offer much better security, that it should get money at a better rate than anybody else."

Of course it was not possible without offering a loan to determine precisely at what rates the government could sell its bonds; but the opponents of the bill believed that Mr. Stevens and Mr. Spaulding exaggerated when they predicted that the price realized would range between 50 and 80. Should a plan of finance based upon taxation heavy enough to inspire confidence in the management of the treasury be adopted, they were convinced that the government could secure loans without serious sacrifice. And further, their fiscal argument showed that an increase in the cost of the war would not be avoided by the rival plan of issuing an inconvertible paper currency.

Still a third alternative was proposed by the opposition—the issue of treasury notes without the legal-tender quality. This suggestion was embodied in the three rival plans introduced into the House as substitutes for the bill. The discussion of their merits naturally elicited debate upon the efficacy of the legal-tender clause. The supporters of the bill were ready enough with assertions of the importance of the clause to the success of the measure; but they found it difficult to explain precisely what its value was. One said, "By making these notes a legal tender we prevent the money sharks from robbing our soldiers of their hard earnings." Another argued that unless the United States notes were made a legal tender, the banks would seek to depreciate them in order to retain the field of circulation

for their own issues. A third declared, "If we make the government issues a legal tender, the demand for specie will be so limited that they will maintain their value." Finally, Senator Sherman argued that the banks would not receive the government notes unless compelled to do so by the legal-tender clause. In response Senator Fessenden pointed to the clause authorizing the subtreasuries to receive the notes on deposit at 5 per cent interest. This clause would make discrimination against the notes impracticable, he argued; for should the banks refuse to receive notes as deposits they would lose business, because the holders would prefer to deposit with the subtreasuries, which would pay 5 per cent interest, instead of with banks.

101. FLUCTUATIONS IN VALUE OF GREENBACKS[1]



[1] From Wesley C. Mitchell, *A History of the Greenbacks*, p. 277. (The University of Chicago Press, 1903.)

102. GREENBACKS AND THE COST OF THE CIVIL WAR[1]

By WESLEY C. MITCHELL

I. THE GREENBACKS AND EXPENDITURES

It is a familiar remark of writers on public finance that all things required by government fall into one of two categories—commodities and services. This elementary distinction regarding the objects of government expenditure is of very great importance for the present problem. For since prices advanced in much greater ratio than wages, it is clear that the greenback issues must have increased the sums paid for commodities more than the sums paid for labor. Indeed, this difference between increase in cost of commodities and of labor seems to have been much wider in the case of the government than in the case of private persons. Clearly then the first step in any estimate of the effect of the legal-tender act upon the expenditures of the government during the war should be a careful separation of expenditures for commodities from expenditures for services.

ESTIMATED INCREASE IN THE ORDINARY EXPENDITURES OF THE FEDERAL GOVERNMENT CAUSED BY THE GREENBACKS

(In millions of dollars)

	Fiscal Years				
	1862 (Six Months)	1863	1864	1865	1866 (Two Months)
Expenditures:					
Class I, salaries, etc.	92	242	259	408	45
Class II, commodities	82	214	258	402	43
Class III, both labor and commodities	89	238	294	405	44
Assumed ratio of increase:					
Class II	3%	37%	56%	102%	43%
Class III	3%	27%	44%	77%	49%
Estimated actual increase:					
Class I, increase in pay of soldiers	....	....	6	62	20
Class II	2	58	93	203	13
Class III	3	51	90	176	14
Total estimated increase each year	5	109	189	441	47

There are many difficulties in the construction of an accurate table showing the effect of the greenbacks upon the expenditures for

[1] Adapted from *A History of the Greenbacks*, pp. 406–19. (The University of Chicago Press, 1903.)

various classes of commodities and services; but the table on p. 169 is the best representation of the situation that can be given. The total increase for the whole period is roughly $791,000,000.

II. THE GREENBACKS AND RECEIPTS

Of the government receipts during the war some sources were unaffected, while with others the depreciated currency gave rise to an increase of revenue for the government. Under the provisions of the first legal-tender act customs duties were paid in gold, and the ad valorem duties were assessed on the foreign specie valuation of goods. The receipts from this source therefore remained on substantially the same footing as if specie payments had been maintained. The receipts from direct taxes were all collected under one law passed six months before suspension. This law fixed the total amount of the tax at $20,000,000 and determined the precise amount to be raised by each state. Accordingly the legal-tender acts had no effect upon this item—except that the states were

ESTIMATED INCREASE IN THE ORDINARY RECEIPTS OF THE FEDERAL GOVERNMENT CAUSED BY THE GREENBACKS

(In millions of dollars)

	Fiscal Year 1862 (Six Months)	Fiscal Year 1863	Fiscal Year 1864	Fiscal Year 1865	Fiscal Year 1866 (Two Months)
Current receipts:					
From customs	33.5	69.1	102.3	84.9	31.3
From sales of public lands	.1	.2	.6	1.0	.1
From direct tax	1.8	1.5	.5	1.2	.0
From miscellaneous sources	.5	3.0	47.5	33.0	12.3
From internal revenue	.....	37.6	109.7	209.5	64.4
	35.9	111.4	260.6	329.6	108.1
Assumed ratios of increase.	3%	37%	56%	102%	43%
Estimated actual increase.	.0	10.0	39.0	106.0	19.0

enabled to pay their quotas in greenbacks instead of in gold. The revenue derived from miscellaneous sources includes a considerable number of small items. Of these, some were doubtless increased by depreciation, e.g., proceeds of sales of captured and abandoned property. Other items were unaffected, e.g., receipts of fees by American consuls abroad. Premiums on sales of gold coin may be set down from the present point of view as clear gain.

The internal-revenue system of taxation was inaugurated by an elaborate law passed July 1, 1862, which imposed certain duties, partly ad valorem, partly specific, upon a great variety of manufactured articles. Two years later another act raised the rates of taxation and increased the number of articles made to pay duties.

At the time the first law was passed the depreciation of the currency was not great, and probably the rates of taxation imposed do not differ much from what they would have been upon a specie basis. But without any modification of the terms of the law, the progressive rise of prices must have caused an increase of the revenue from ad valorem duties, and from taxes on gross receipts and upon incomes. Receipts from specific duties, licenses, etc., however, probably did not increase except as changes were made in the law or in its administration.

The table shows the increase of receipts to be roughly $174,000,000.

III. THE GREENBACKS AND INDIRECT COSTS

It is probable that not a little of the lavishness with which public funds were appropriated by Congress during the war can be traced to the paper-money policy. At least such was the opinion of a man so well placed to observe the operations of the treasury as Hugh McCulloch. In his report of 1867 he said: "As long as notes could be issued and bonds could be sold at a premium or at par, for what the statute made money, there was a constant temptation to liberal, if not unnecessary, expenditures. Had the specie standard been maintained and bonds been sold at a discount for real money, there would have been an economy in all branches of the public service which unfortunately was not witnessed."

If the paper currency tempted the government to reckless expenditures, it also predisposed the people to submit more willingly to heavy taxation. The advance of money wages and of money prices made most people feel wealthier, and, feeling wealthier, they were less inclined to grumble over the taxes. But while the feeling of prosperity may have been instrumental in procuring a cheerful acceptance of war taxes, it is very doubtful whether the net effect of the paper-money system was favorable to revenue.

IV. THE GREENBACKS AND THE PUBLIC DEBT

The resort to a legal-tender paper currency, one may argue, is a confession of acute financial distress and as such must depress the market

for bonds. Therefore, to the financial loss caused by the increase of expenditures should be added a second loss from the unfavorable terms to which the government had to submit in selling its securities.

Of course, it is true that the secretaries of the treasury in their efforts to borrow money were obliged to agree to some very hard bargains. There was little ground for exultation over the sale at par of bonds bearing interest at 5 or 6 per cent in gold when the currency received from purchasers was worth in specie but 50 per cent of its face value. But this loss arising from the difference in value between the paper dollars received by the treasury for bonds and the specie dollars which the treasury contracted to pay bondholders after a term of years is not a further loss in addition to the losses discussed in the preceding sections, but rather these same losses looked at from another point of view. For the estimate of the increase of expenditures above receipts, and therefore of debt contracted, rests precisely upon the decline in the value of the paper dollar from the specie standard. One may arrive at an estimate of the loss either by computing the increase in the number of dollars that had to be borrowed in paper money to be repaid in gold, or by estimating the decline in the specie value of the paper money raised by the sale of bonds; but to make estimates by both of these methods would be to include two guesses at the same item.

It is true that, had gold bonds been sold largely at less than par for paper money, a second loss would have been incurred from the discount in addition to the loss from the smaller purchasing power of the currency received. But, as a matter of fact, the deviation from par in the subscription prices for bonds was not of great importance. The prices of government securities did not fluctuate very widely during the war, for the very good reason that these prices showed merely the value of one set of government promises to pay—viz., bonds, in terms of another set—viz., greenbacks. Most factors that affected the credit of the government would affect the specie value of all its promises in much the same manner, and therefore would not alter materially the ratio of one to another.

It remains only to say a word about the effect of the legal-tender acts upon the interest charge borne by the government. The great financial argument in favor of the greenbacks has always been that they constitute a "loan without interest." But against the saving of interest effected by issuing greenbacks instead of selling bonds should be put down the loss of interest on the increase of debt arising

from the augmentation of expenditures. If the rate of interest be taken at 6 per cent, a simple calculation shows that the interest saved by the greenbacks up to August 31, 1865, was but $28,000,000 greater than the interest loss through the excess of increase of expenditures over the increase of receipts as shown by tables. By the end of this period the augmentation of debt caused by the greenbacks had apparently become greater than the volume of greenbacks in circulation, so that from this time forward the annual loss of interest probably exceeded the gain.

V. CONCLUSION

The public debt reached its maximum amount August 31, 1865, when it stood at $2,846,000,000. Of this immense debt the preceding estimates indicate that some $589,000,000, or rather more than a fifth of the whole amount, was due to the substitution of United States notes for metallic money. Little as these estimates can pretend to accuracy, it seems safe at least to accept the conclusion that the greenbacks increased the debt incurred during the war by a sum running into the hundreds of millions. If so, it follows that, even from the narrowly financial point of view of their sponsors, the legal-tender acts had singularly unfortunate consequences.

103. EFFECTS OF GREENBACKS ON CREDIT TRANSACTIONS[1]

BY JOSEPH J. KLEIN

In an address on "Character and Credit," delivered shortly after the close of the Civil War, Mr. Edward D. Page stated that the long credits which existed before the war could not be continued because of the doubts that existed in consequence of a fluctuating standard. Horace Greeley, writing his *Essays on Political Economy* sometime before 1869, confirms the statements of Mr. Page. He declared that our internal credit system had broken down, and rural traders, no longer able to replenish their stocks on credit, bought little or nothing. A gentleman who was in the dry-goods business at the time states that "during the war everything was on a cash basis, on account of uncertainty." An actuary recalled that the usual terms during the period were cash or thirty days.

The *Commercial and Financial Chronicle*, on September 9, 1865, published an authoritative editorial, "The Present State of Trade

[1] Adapted from "The Development of Mercantile Instruments of Credit," *Journal of Accountancy*, XIII (1912), 45-46.

and Credit," wherein we find exactly the information sought as a result of "careful inquiry" regarding the buyers from the South and the West. Most jobbing sales were made on "short" time, from sixty days to four months, but if settled within thirty days from date a discount of 1 per cent per month was allowed, including interest for the first thirty days. Inasmuch as most bills were anticipated because of these favorable terms, very little credit was either "asked or given."

Continuing from the same source, we learn that the continued rise in prices because of the volume of currency in circulation has made money so plentiful that even the retail merchants can and do buy for cash. "Very little paper is being made," and it is on short-time periods only. Industry has not kept pace with the demand, therefore buyers are more anxious to secure goods than are the sellers to dispose of them, which is another reason why long credit is not in vogue. "To be sure," old customers can still get the one-time fashionable six months, but a few only avail themselves of this privilege. About one-half of the buyers pay cash, and the rest "average less than three months' credit, while only a few obtain six to eight months."

104. PAPER MONEY AND SUBSIDIARY CURRENCY[1]

BY ROLAND P. FALKNER

When, through the blighting influence of a forced circulation of paper money, silver, as well as gold, disappears from the monetary circulation, there is left a distressing vacancy which is not immediately filled. The circulation of silver, the small change of everyday life, affects the whole people, and the inability to secure change and make change causes ceaseless vexation. Sweep out of existence all denominations of currency between the cent and the dollar and try to imagine how the affairs of everyday life would be hampered and checked at every turn. Petty commerce would be at a standstill. The retail dealer would have to refuse his customer or give him credit, unless the latter should be willing to purchase vastly more than he would need. The payment of labourers would become a serious daily or weekly trial for the employer. In actual experience there has never been such a complete absence of small change, but there have been times of great scarcity, marked by all the phenomena described.

There are two measures of relief which have been applied in such a predicament, often concurrently. One is the issue of paper substi-

[1] Adapted from "The Private Issue of Token Coins," *Political Science Quarterly*, XVI (1901), pp. 305–27.

tutes—e.g., our own fractional currency; the other, the abundant issue of copper coins—e.g., so that twelve pennies may do the work of a shilling. If the crisis is prolonged the government sooner or later steps in to give relief in one of these ways or both. But the need brooks no delay, and it frequently happens that before the slow machinery of the government is set in motion private persons seek relief in the unauthorized issue of both notes and coin to meet the emergency.

In the United States resort has been made to tokens at various times. During the suspension of specie payments in 1812 and in 1837, large quantities were issued. Few of these "shinplasters" have been preserved; but the historians tell us that they were in universal use and, if we consider the circumstances of their issue, we may well believe that it was so. In the panic of 1837 some relief was sought in the issue of coppers. Within certain limits, such coins in sufficient quantities are capable of being a substitute for small silver. Some of these private copper coins have been preserved. Numismatists enumerate some 164 varieties of such coins from the Jacksonian epoch. In diameter and thickness they correspond to the large copper cent then in use.

Of the coins described by the numismatist, some ninety-three are what are designated as shop cards. These were issued by merchants and others, partly as advertisements, partly to supply the great need of small change. Some of them bear inscriptions, "For public accommodation," and the like, which indicate their purpose. On the other hand, a large number of the coins of this period were used as vehicles of political satire and abuse. The victim of this abuse is generally Jackson. Thus, one coin of 1834 bears the gaunt figure of the President, carrying in one hand a sword and in the other a money-bag, surrounded by the words, "A plain system, void of pomp." On the reverse of the coin is the emblem of a jackass in his most stubborn attitude, with the letters "LL.D." on his haunches, in allusion to the degree conferred on Jackson by Harvard University. Over the jackass are the words "Roman Firmness" and around the edge the celebrated words of Jackson, "The Constitution as I understand it." Another coin of 1837 bears a representation of a turtle carrying on its back an iron safe labelled "Sub-treasury," while beneath are the words, "Fiscal agent" and around the coin, "Executive experiment." The reverse of this coin has a jackass running, and the words from Van Buren's inaugural, "I follow in the steps of my illustrious predecessor." The contest over the Bank is shown in two contrasted coins

of this period. One bears a ship under full sail, labelled "Constitution," and around it the words, "Webster, credit currency, 1840"; while the other shows a ship labelled "Experiment," struck by lightning and foundering in the waves, with the inscription, "Van Buren, metallic currency, 1837." A few of the coins are laudatory of Jackson and his party, but the greater number contain expressions of abuse and ridicule. A full list of these coins, with appropriate explanations, would form a complete exposition of the political controversies of the day; for among them we find references to the Bank, the suspension of specie payments, Benton's "mint-drops," slavery and kindred subjects of contemporary interest. The strong political bias of these coins leads us to doubt whether their circulation as money was as general as that of the neutral merchant tokens. They are none the less a curious monument alike of the bitterness of political strife and of the disorders of the currency.

Again during the Civil War the depreciation of the greenbacks soon drove the subsidiary silver from circulation and compelled a resort to cheap substitutes and tokens. To mitigate this evil a law was enacted July 17, 1862, authorizing the secretary of the treasury to issue stamps to be exchanged for United States notes. Private issues were prohibited in the most explicit terms.

This law was commonly understood to authorize the use of postage stamps, and its first effect was a run upon the post-office for stamps. The postmaster-general reported that in the third quarter of 1862 the receipts from the sale of stamps in twenty-nine of the larger post-offices exceeded by $794,340.08 the receipts in the corresponding quarter of 1861. This excess was, in fact, greater than the total sales in the third quarter of 1861. In New York City alone the excess was $425,296. Even at this rate the post-office department did not supply half the quantity demanded. Such a sudden and unusual demand greatly embarrassed the postal authorities and led to orders from headquarters to refuse to sell stamps wherever there was reason to believe they were not to be used for postal purposes. The adhesive stamps of the post-office were an awkward makeshift as currency. They cracked easily, and when they grew dirty could not be used for their original purposes. Frequently the mucilage was washed off or they were pasted upon strips of cardboard. In some cases they were encased in metal, and I have seen one with the face protected by a piece of mica and bearing on the back an ingenious advertisement.

The unfitness of the postage stamps for currency led the secretary of the treasury to substitute small notes for them. As these notes bore for each denomination a representation of the postage stamp of the same value, they were known as postage currency. In December, 1862, he reported that it had been found impossible to keep pace with the public demand, though the daily issue was $100,000 and was being rapidly increased to twice that amount. Yet at the time of preparing his report the aggregate issue had reached only $3,884,000, and to meet the imperious needs of the trading public the issue was too slow. In March, 1863, fractional notes were authorized to the extent of $50,000,000. They were to take the place of the postage currency, but by June 30, 1863, none had been issued, though the postage notes then amounted to $20,192,456. It would appear that this sum really met the needs of the time, for it was only gradually increased, though as time went on the fractional currency took the place of the postage issues. The combined issues as late as June 30, 1866, amounted to not more than $27,070,876.

If by the close of 1863 the government had succeeded in supplying the need of small currency, the same was not true in the early months of that year, which, despite the prohibitions of the law, showed a remarkable crop of "shinplasters" and copper tokens. The issue of the latter began in the fall of 1862 and reached its height in the early part of 1863. The *Coin Collectors' Journal* for 1876 mentions about 5,000 varieties.

The coins are in general nearly of the diameter and thickness of the small cents then in use, though a few are larger and approximate the general appearance of the older copper cents. By far the greater number are of copper slightly alloyed, though a small number are of a composition which in its appearance is not unlike that of the nickel cent of 1857. With regard to the inscriptions, we may distinguish broadly between tradesmen's tokens and general tokens, using the former term to designate such coins as bore some evidence of their origin. I find in a small collection ten out of a total of thirty-five which contain a direct promise to redeem the coins, sometimes in bills but more generally without specification of the mode of redemption. On the other hand, twenty-five coins contain only the name of the dealer. While one side bears the name of the dealer, the other generally bears some patriotic emblem or inscription. The most frequent of these is the Indian's head which figured on the legal cent after 1859.

Looking at this side of the coin, one would suppose that he was handling an ordinary cent. Heads of liberty, recalling the former cents, flags, shields, and the like are also seen. Sentiments, such as "Liberty and Union," "Union forever," are not infrequent; while an ingenious miller of Albany, N.Y., seems to mix patriotism and business by the inscription "Union Flour," and the People's Line of Steamers holds strictly to business by placing on the coin the time-table of the line. Doubtless these tokens involved a profit to the issuer and a loss to the public. Yet the fact that the issuers placed their names upon the coins seems to indicate that redemption was at least contemplated.

In the large collection mentioned above are enumerated as many as 848 varieties of the general tokens. Since in the absence of the trader's name two sides of the coin had to be inscribed, a greater scope for the exercise of ingenuity was afforded to the designer. As a rule, the coin has on one side an emblem and on the reverse side an inscription. Perhaps the most frequent specimen was an almost exact imitation of the legal cent, differing from that coin simply by the insertion in very small letters of the word "not" above the words "one cent." The Indian's head, either exactly or nearly reproducing that on the legal coin, is a frequent emblem. We find used also the shield, the flag, the figure of liberty, the heads of Washington and Jackson, groups of cannon and arms, monitors, and many others. The inscriptions are either general or have some reference to the emblem on the coin.

C. The Aftermath of the Greenbacks

105. A CHRONOLOGY OF THE GREENBACKS

1. December 18, 1865: Secretary McCulloch and Congress pledged an early retirement of the greenbacks.

2. April 12, 1866: Congress limited the retirement to a total of $10,000,000 for the next six months, and not to exceed $4,000,000 monthly thereafter.

3. February 4, 1868: Further retirement forbidden; $44,000,000 had been retired in the interim. Total outstanding then $356,000,000.

4. March 3, 1869: In Public Credit act "Congress solemnly pledges its faith to make provision at the earliest practicable period for the redemption of the United States notes in coin."

5. 1871 and 1872: Secretary Boutwell reissued $6,137,000 of retired notes. Strong criticism soon induced their retirement again.

6. March 7, 1873—January 15, 1874: Secretary Richardson reissued $26,000,000 by means of a purchase of bonds.

7. April, 1874: Congress passed a bill authorizing reissues until the total amount outstanding should reach $400,000,000. Grant vetoed the bill April 22.

8. June 20, 1874: A clause in a banking measure fixed the upper limit as $382,000,000, the amount then outstanding.

9. January 14, 1875: Congress provided that after January 1, 1879, United States notes should be redeemed in coin. In the meanwhile for every increase of $100 in bank-note currency, $80 of greenbacks should be retired.

10. May 21, 1878: Forbade any further cancellation of the greenbacks. When redeemed they should be reissued by the Secretary. The amount then outstanding was $346,681,016.

11. January 1, 1879: Greenbacks redeemable in specie on demand.

12. July 12, 1882: Congress provided that when gold reserve fell below $100,000,000 further issues of gold certificates should be suspended, thus indirectly recognizing a definite minimum reserve.

13. 1894–95: The Government sold bonds to replenish specie reserve.

14. March 14, 1900: A separate reserve fund of $150,000,000 was authorized, and adequate powers granted for maintaining such reserve.

15. December 23, 1913: Net earnings derived by the United States from federal reserve banks shall, in the discretion of the Secretary of the Treasury, be used to supplement the gold reserve held against outstanding United States notes.

106. THE GREENBACK MOVEMENT[1]

By MURRAY S. WILDMAN

The long experience of the people with paper money in the form of Government notes during the Civil War and the years following when the legal-tender "greenbacks" constituted the chief circulating medium, wrought an important change in the popular conceptions of money.

Money was said to consist of anything which "bore the stamp of the Government," something that depends for its value upon the

[1] Adapted from *Money Inflation in the United States*, pp. 156–70. (G. P. Putnam's Sons, 1905.)

"faith or credit of the nation." This stamp, this faith, and credit became thus the essential features, whereas before they had been merely incidental features of money. This was true not only of greenbacks, but also of bank notes under the national banking system established during the war. Bank notes now seemed to come indirectly from the Government. Their value no longer seemed to depend upon the integrity of the banker which paid them out, for if redeemed they were redeemed by the Government in greenbacks.

It is difficult to realize, or to overestimate, the importance of the change which had taken place.

The action of the Government in the legal-tender provision had cast a veil over the economic situation and concealed its true character. In this adaptation of the popular mind to the new situation we have a good example of the establishment of an institution by implicit consent, where the people are guided by superficial criteria, and where few have the interest to examine and hold in mind the real principles upon which the new system rests.

In the first annual report of Secretary McCulloch, after the return of peace, he recommended the speedy resumption of specie payments, and he proceeded to withdraw the notes from circulation as the treasury revenues would permit. His proposal was fully approved by Congress, and in an act passed in April of 1866, a steady process of contraction was provided for.

The action of Congress in thus providing for resumption of specie payments gave a new basis for confidence in the credit of the Government and was reflected in a rise in the value of the notes, which was equivalent to a fall in prices of goods and of gold. The people were apparently unable to see that such a fall of prices was the inevitable result of the appreciating credit which the notes represented, a process that must take place whether the actual quantity in existence was large or small. Attention was centered, not on the underlying cause, but on this group of coincident facts, namely, low prices, inability to borrow interpreted as scarcity of money, and contraction of the currency. The shadow had almost completely replaced the substance as the cause of falling prices, and Congress was subjected to a rain of protests against the policy of contraction.

This new money, which cost the Government nothing, seemed to the people as good as gold. It paid the soldier, built the railways, lifted the mortgage from the farm. What more could be asked of any sort of money? It was the money of the common people; it

served all their purposes when they had it, but now it was apparently growing scarce. Bankers said they had none to lend, debtors had none with which to pay. Buyers found money scarce and were unable to pay the old prices for products. Everybody was afraid to buy for fear that when he wished to sell he could not "get his money back." These were the practical facts, superficial though they may have been. Business was dropping; values had all gone to pieces, apparently for want of that which it cost the Government nothing to supply.

The attack upon the policy of contraction reached a successful issue in 1868 in the act prohibiting any further retirement of the greenbacks. With the steadily falling prices, however, the discontent was not abated and it found expression in a movement for the abolition of bank notes and an increase of the greenback currency. This movement did not reach its culmination until 1878, though as early as 1872 it appeared as a national party issue in the platform of the Labor Reform party, which resolved: "That it is the duty of the Government to establish a just standard of distribution of capital and labor by providing a purely national circulating medium, based on the faith and resources of the nation, issued directly to the people without the intervention of any system of banking corporations, which money shall be legal tender in the payment of all debts, public and private."

The error of theory upon which the agitation for more money was based may be shown in a series of propositions appearing in the debates of Congress.

a) In the first place we have an illustration of the dangerous half-truth. Since the value of a commodity, as gold, was determined by demand for the thing and the supply of the same, so now it was assumed, and urged, that the value of promises to pay was dependent on the same law of demand and supply. The terms "gold" and "promises" were not used, but the ambiguous term "money" was used instead of either, so that the two propositions became identical. The law applicable to the material standard was asserted to apply to the medium which represented the new immaterial standard.

"A currency good in the payment of all debts would fix the price of commodities, and the value of debts would be adjusted to it. The price would be high or low, depending on the volume of the currency."

b) The identification of the token with the thing for which it stood may be shown most clearly in the strange belief that the withdrawal and subsequent destruction of a greenback was an annihilation

of just so much of the wealth of the nation, notwithstanding the manifest fact that no notes could be cancelled by the debtor Treasury until it had secured them by delivering equivalent wealth to the creditor holder.

"When you tell me that you will repeal the legal-tender act and burn up the legal-tender notes I tell you you will burn up $382,000,000 values in this country and you reduce to the extent of $382,000,000 the property of the people of the United States of America."

c) If the value of the notes, or their purchasing power, depended on the volume issued, from the economic point of view, and if the stamp of the Government gave to money whatever value it possessed, the whole problem of prices passed over as by the wave of a magician's wand from the realm of economic law to the realm of legislation. Here was a way out of all the trouble which depressed the people. Here was the time and place to make a new declaration of independence, an opportunity to throw off the galling yoke of natural law! For what other purpose did the Constitution give to Congress the power to "coin money and to regulate the value thereof"?

"I do not consult antiquated theorists of a hundred years ago to determine whether we have, or have not, enough money for the business of the country. . . . . Being a practical man, I look upon things as I find them and will insist on a system of finance which has proven beneficial to our people."

"Are we to be whistled down the wind and answered by theories from John Stuart Mill or from Bastiat? I hope not."

"I feel compelled to regard the powers of Congress over the money of the Republic absolutely sovereign, complete, indivisible, and unrestrained. . . . . It remained for the Congress of the United States, representing the most intelligent and the most highly civilized people of the world, to coin "the credit of the nation," and it has thus wisely provided a lawful money for the people, an instrument of exchange more perfect than that of any other nation. In our progress and development a great stride was taken in monetary science when the legal-tender act of 1862 was approved by the President of the United States."

d) When these propositions were accepted it was useless to look further for the cause of the hard times. The suffering all came from a contraction of the currency. If it was answered that there had really been no contraction as yet, the reply came quickly that, with the great development of trade and industry in the last few years, and

the natural growth of population, the failure to increase the volume of currency was virtually contraction.

"It was then for want of money and not on account of too much of it, to meet his obligations that he [Jay Cooke] failed. . . . . The injury in every instance can be traced to the want of money and not to a superabundance of it."

"The Senate and the country may see and understand how and why it is that, however hard our farmers and planters may work and toil, however genial and fruitful the season may have been, however plentiful and refreshing the rains may have fallen on the fruitful soil of the West and of the South, prosperity for the want of money was, and is today, an impossibility."

It has been said that the people were not in a position to see clearly the causes of the depression. What they did see was the net results of all the complex forces. These net results were falling prices and an inability to renew loans as they came due. The banks refused to lend, not for want of a circulating medium, but because of the inability of the borrower to assure the repayment of his accommodation. No doubt a large portion of the people believed that the banks enjoyed special advantages under the banking law, and in so far as they were creditors they were favored as all creditors are by declining values, granting that the loan is secure, just as debtors are favored by advancing prices. The attack on the banks was not an essential feature of the movement, but added much strength to it.

e) Assuming then that producers were suffering from a dearth of legal-tender notes, and that Congress had power to remedy or increase this suffering, the attack of the inflationists was naturally directed at three specific acts: the contraction of the currency by the Secretary with the approval of Congress in 1865, the guaranty of payment of bonds in coin by the Act to Strengthen the Public Credit, and the determination to resume specie payments and redeem the legal-tender notes. In this attack is seen clearly outlined the change in moral tone which had come over the country in a single decade. It is safe to say that no prominent man in public life would have dared, even in the darkest day of the war, to advise the perpetuation of the legal tenders, or the scaling down of the bonded debt, even when the bonds were issued in exchange for notes. With this attack upon Congress and the Treasury came a vociferous abuse of capitalists in general, of which the following is a fair example: "We have doubled the indebtedness of the taxpayers of the country by agreeing to pay

the five-twenty bonds in gold, when they were contracted to be paid in greenbacks; but that does not satisfy the insatiate greed, the voracious appetite of the Shylocks and sharks, the bankers and brokers, the money mongers, and gold worshippers, of the country.

"No, sir, these lineal descendants and next of kin to the sordid and mercenary crew whom the Saviour of the world when on earth whipped and scourged from the temple at Jerusalem, must add to the intolerable burden of debt of the people by bringing the price of everything down to the standard of gold, by contracting the currency for the purpose of accomplishing that sublimest of all follies in the present condition of the country—the resumption of specie payment."

f) More important than the attack upon the creditor class itself was the symptom of social disease indicated by this new and distorted view of the obligation of the Government's contract—the pledged "faith of the nation," which by these same partisans was said to make the notes as good as gold. Men would assert that the value of the promises of this great nation never could depreciate and in the same debate gloat over the fact that claims against the Government could not be enforced.

"It is known to every gentleman that you passed an act in 1869 saying you would redeem this debt in gold. Suppose you did. It did not form any part of the contract. It was a legislative act and bound nobody. Whenever you repeal it it is at an end."

g) Finally, in order to buttress this theoretical structure, illustrations from history were given, and alleged conditions were described with an utter disregard of facts. As an instance, one writer asserts, to prove the influence of the quantity of money on prices, that "the United States had $1,800,000,000 paper in January, 1866, and prices ranged high accordingly in that money; this year (1877) the volume of money is little over $800,000,000, and prices are low accordingly." False assertions such as this could be cited in great number.

These theories, supported by facts which did not exist, formed what may be called the erroneous intellectual basis of greenbackism. But this was only the basis of the movement; in order that the skeleton might be clothed with flesh and blood and quickened into life, the emotions of the people must be touched, and this point was not neglected. No flights of oratory were wanting. On this line the two Senators of the great State of Illinois may be quoted:

"If our country is not good, then our currency is not good; if our Government is good our currency is good, and with a Government

so endeared to the people of this land that they would spend billions upon billions of money and rivers and rivers of the best blood to preserve it, I ask you where the man is who will stand up here and curse it and say it is not responsible for the circulation of the country."

"Sir, I maintain for that legal-tender, today, that it is as good as gold. The honor of this nation is pledged for its redemption in gold. We will never repudiate a dollar or a dime of it. Sir, it has upon it the impress of the best faith of this nation. It is the money sealed and sanctified with the best blood of the Republic. . . . . It is a noble currency, a grand trophy of the war, and held dear in the heart of every American citizen."

h) The belief in an arbitrary shifting of values by every variation in the volume of notes led to another view less extensively held, no doubt, but yet of serious effect, and that was that Congress and the Administration were in the corrupt control of the financial interests against the producing or borrowing interests. As the farmer brooded over his misfortunes and was stung with the feeling of injustice in addition to the realization of loss; as the conviction became more and more impressed that he had not only been betrayed by his representatives, but deliberately robbed of the result of his labor and the patrimony of his children, he was ready to believe the demagogue who could explain it all and point out the remedy. This psychological stress was made the more tense and socially effective by that concentration of dissatisfaction in agricultural and rural environment which characterized the West and South.

The "Inflation Bill of 1873" is one of the most entertaining debates in the Annals of Congress. Objectively speaking, it comprises seventeen hundred columns of the *Congressional Record* and occupied almost the entire attention of both Houses during the long session of the Congress beginning December 1. In this voluminous compendium we have gathered together what is probably the most interesting body of economic theory, from the point of view of the curio-hunter, that American public records afford. The advocates of inflation were in the majority—the vote in the House was 140 to 102; in the Senate, 29 to 24—and the bill to increase the circulation of greenbacks to $400,000,000 failed to become law only by the veto of President Grant. The quotations above are taken almost entirely from this discussion, as illustrating the views of the most representative

body of men available. It may be observed that the inflationist advocates were not confined to either of the great parties nor to any section.

As a direct party issue greenbackism proved to be a weaker movement than did the non-partisan measure of 1873–74. The temporary relief of more prosperous times and the strength of the old party ties resulted in practical abandonment after a single decade of struggle. The element of the discontented and aggrieved found a more promising field for their powers of agitation in another movement which was already taking form; for while the silver movement offered the essential benefits which greenbackism sought, it held out certain important tactical advantages.

107. THE FRONTIER FARMER AND GREENBACKISM[1]

By CLYDE O. RUGGLES

It was ultimately in the agricultural west that greenbackism found its strongest support. The conclusions of a study of the greenback movement in two typical states, Iowa and Wisconsin, may be summarized as follows:

The prosperous decade of 1860 to 1870 encouraged many to engage in farming and to go into debt; that the falling prices of the decade 1870 to 1880 made it impossible for many to pay these debts, especially since the subsidy policy of the Homestead Law had enticed a class with but very slender means to enter agriculture; that the counties which sustained a slightly higher percentage of mortgage to farm value gave more votes to the Greenback party; that the land subsidy policy also brought about a greater production of the principal grains than could be disposed of at a profit; that the Greenback party was organized and attained its greatest strength in both States during the years of greatest agricultural depression and lost its hold on the voter with the return of better times; that the party was strongest in that State which was more dependent upon agriculture, and in the section of both States that were more frontier in character; and, finally, that in the "Greenback counties" there was but little stress upon manufacturing, diversified farming, and the dairy, and a marked concentration upon grain farming.

[1] Adapted from "The Economic Basis of the Greenback Movement in Iowa and Wisconsin," *Proceedings of Mississippi Valley Historical Association* (Omaha), VI (1913), 765.

108. OBJECTIONS TO RESUMPTION OF SPECIE PAYMENTS[1]

By BENJAMIN BUTLER

If resumption of specie payments could be accomplished it would cause the greatest depreciation of values in every species of property except debts held against the Government and individuals. Every bond and note would be appreciated, say 30 per cent. All other property would be depreciated the same amount as compared with the present rate of valuation. Such an unsettling of values the world has never seen nor any nation endured. It would be equivalent to confiscation by legislative act of one-third of the value of all the property in the country, excepting only that held by the creditor class.

But could resumption in fact be accomplished? The sole alleviation yet suggested is that such confiscation might be extended over a considerable period of time, say two years and a half, so that we might meanwhile be preparing ourselves for it; in other words, the Government ought to deprive the large majority of the middle and laboring classes of its people of 12 per cent annually of their values until one-third of them are absorbed for the benefit of the small minority, who are owners of capital loaned at interest.

I will not insult the intelligence of the House by any argument upon the feasibility or practicability of these schemes. The better way to test them is to call attention to one or two of the methods by which it is proposed to accomplish so gigantic an undertaking. One says, "The way to resume specie payments is to resume." Suppose the physician should say to the sick man, "The way not to be sick is to be well," might not the patient ask his doctor, How am I to get well? So, a few years ago, one may remember that the way proposed for the Union armies to get to Richmond was "On to Richmond"; and I trust I may not be considered malicious in calling to mind that our armies found some difficulties in carrying out that suggestion, which resulted in such disaster that it was to be hoped those who blindly advocated it would never again dogmatize upon any subject the difficulties of which they neither appreciated nor understood.

Another proposition, coming from a source we much respect in some other of the branches of political science, is that we pass a law that specie payments *shall be resumed* on the 1st day of July next,

[1] Adapted from speech in Congress, January 12, 1869, *Congressional Globe*, 40th Congr., 3d sess., pp. 304–5.

but we are not told how the law is to be executed if passed. It was jocosely said many years ago that while an act of Parliament was omnipotent yet it could not make one's uncle his aunt. I fancy there would be an equally insuperable difficulty in compelling by act of Congress the payment at par of $700,000,000 of debts due on demand when there are but $100,000,000 capable of being used for that purpose.

Another learned, able, and intelligent gentleman, for whom all entertain the highest regard, in a speech of great power, supports a bill embodying a plan for the relief of our financial difficulties which would be *perfect* were it not *impossible*. Stripped of the halo thrown around it by his logic and learning, it proposes that the Government and banks shall return to specie payments by hoarding gold enough with which to do it. Granted: but where is the gold to be got? By borrowing simply. For although the Government may hoard the gold it receives for its duties on imports, yet that gold is in fact obtained by its merchants by borrowing it with Government notes at 35 per cent discount. Whatever deficit of gold to carry out this scheme cannot be obtained by this process is to be borrowed on the Government notes for thirty years, sold at such rate of discount as foreign bankers may choose to impose. Now, specie payments, if they can be maintained, it will be admitted, will make all our public debt with its high rates of interest equal to par, if not at a premium in gold. The fault in the plan seems to be that we are not told how many greenbacks we must sell at 35 per cent less than their face, and how many bonds we must negotiate at a like rate of discount on thirty years, to place ourselves in condition to pay both greenbacks and the bonds, which we thus sell at par. Differential calculus might work out the problem, but plain arithmetic is entirely inadequate to the task. Besides, as upon the best authorities there are only about fifteen hundred millions of specie currency in circulation in all the nations where our bonds have been or will be taken as an investment, or, indeed, in the civilized world, if we should succeed in locking up $350,000,000 of that, or 20 per cent of the whole currency of the world, should we not make what in technical phrase is known as a "corner" on the rest of mankind, in comparison with which the late performance in that line of the Erie Railroad and New York bankers would sink into merited insignificance?

Time will not permit me further examination of this and cognate plans for the resumption of specie payments. If a return to specie values is the only remedy for our financial evils, then there is but

one plan, in my judgment, by which it can be accomplished: we must *wait and grow to it.* By the industry and economy of our people; by the development of our resources; by the enterprise of our business; by the extension of our commerce; by the production of the precious metals; by reducing importations, the only method by which we can keep specie at home; by retrenchment of the expenses of government, both State and national; by the relinquishment of all hazardous and doubtful enterprises, we must accumulate sufficient surplus wealth to bring back the $600,000,000 of our national bonds held abroad, to which may be added an equal like amount of State and railroad bonds also held there, and thus stop the annual drain of more than seventy millions of bullion now sent abroad year by year to meet interest alone. When this is done we may with wisdom return to specie values and specie payments without serious financial disaster and commercial ruin. But this time will come only when gold and silver from the plenitude of its production will have depreciated to our values, not we appreciate them to the present value of gold and silver.

109. THE RESUMPTION OF SPECIE PAYMENTS[1]

By ALEXANDER D. NOYES

As Secretary of the Treasury, Mr. Sherman fixed upon 40 per cent as "the smallest reserve at which resumption could be prudently commenced and successfully maintained." In pursuance of this policy he had accumulated by December 31, 1878, $114,193,000 in gold, which was a trifle over 40 per cent of the United States notes then outstanding. Of this gold reserve $95,500,000 had been obtained through the sale of bonds, part of the coin being procured in Europe.

The accomplishment and maintenance of specie payments, however, was not a simple task. The danger to the Treasury's redemption fund lay, as everyone understood, in possible gold exports. As it happened, there was no gold movement in progress at the time of specie resumption; but foreign exchange was only a trifle below the normal gold-exporting point, and no spring season for eighteen years had passed without gold shipments. In the first half of 1877, nearly twenty millions of gold had been exported from New York, chiefly obtained from the city banks. On January 1, 1879, these New York banks held in specie only $19,781,400, but they held twice as much

[1] Adapted from *Forty Years of American Finance*, pp. 45–57. (G. P. Putnam's Sons, 1898.)

in legal-tender notes, redeemable at the Treasury in gold. Supposing, then, a further rise in exchange and a heavy export of gold, there was not the least doubt about what would happen to the Treasury reserve.

The general industrial situation in 1879 foreboded trouble. Domestic markets were unfavorable, wage reductions were pending in the cotton goods industry, and the iron trade, a traditional barometer of industrial situations, opened the year with so little activity that prices fell below the normal average cost of production. With hardly an exception the country's staple industries sank, during the early months of 1879, into complete stagnation. In February, the most experienced international bankers, including the Rothschilds, who had placed the bulk of recent American loans, predicted that gold was about to move in quantity from the United States to Europe. By the middle of March, the Secretary was disturbed enough to set on foot an inquiry into the possibility of controlling specie exports through sales of Government exchange. Such recourse, Mr. Sherman plainly intimated, might become necessary "in preventing popular alarm." Not even this expedient was feasible; sterling continued to advance, and finally in the second week of June a million and a quarter gold was shipped. This gold was obtained from the Treasury in exchange for notes; it reduced to precisely that extent the Government reserve.

The wheat harvest of 1878, in England and on the European continent, had been one of the largest on record. When 1879 was well advanced, wheat from English farms was still moving in quantity to storage points. At the close of March, the stock of wheat at Liverpool was larger than at any time within five years; the same was true of every cereal product. Frosty weather and heavy rains in England had indeed advanced the price of wheat sixpence a bushel, and it was admitted that the English crop of 1878 would not be duplicated. But meantime the reserve supply was ample, demand from consumers was only moderate, and early in March observers of the market predicted that prices had reached their high level for the year.

Little by little the foreign situation changed. As is usual with highly speculative markets, the news was contradictory, and the truth developed slowly. But it was evident in May, while the outlook for this country's harvest was steadily improving, that the European grain markets were beginning to stir with apprehension. In France snow fell heavily late in the spring; in England, after a late and

destructive frost, rain set in and continued almost incessantly through the summer. It was literally a sunless season. At the opening of July, people were wearing heavy overcoats in London, and in the country all the crops were moulding. By this time the impending harvest failure had begun to assume the dimensions of a national calamity. On Sunday, July 6th, by the Archbishop of Canterbury's direction, prayers for fair weather were offered in the English churches. In another month the time was past when even favorable weather would help, and by August it was made clear to all markets that, while the United States would yield the largest harvest in its history, every growing crop in the British Islands was practically ruined. No such disaster had befallen English agriculture within the memory of living men. The actual decrease in the wheat crop especially, as compared with 1878, was 54 per cent; the total yield was smaller by thirty million bushels than in the leanest recorded year since the middle of the century. Nor was this Europe's only agricultural catastrophe. Until midsummer, there had been favorable news from the continental crops. But the blight which fell on England's harvest did equal damage beyond the Channel. France, Austria, Germany, and Russia yielded, in 1879, the smallest and poorest wheat crops in ten years; the whole continental harvest fell off 15 per cent from the average of the three preceding years. European states, which usually exported wheat, had not raised enough to feed their own people. "It is the American supply alone," wrote one contemporary critic, "which has saved Europe from a great famine."

All circumstances seemed to conspire in favor of this country. Sunny and favorable "farmer's weather," with the due proportion of rains, prevailed throughout the season. The wheat fields under cultivation had increased over 1878 by half a million acres. The average yield per acre has never but twice been exceeded in this country, and the total crop exceeded by 28,000,000 bushels the crop of any previous year. The positive news of Great Britain's crop failure carried the price up no less than forty cents a bushel within six weeks. Along with this advance in prices, exports of wheat rose to wholly unprecedented volume. The foreign buying was so urgent that the country's wheat shipments, which even in 1878 did not run beyond two million bushels weekly, averaged, in September, 1879, a million bushels daily, a volume of grain exports equalled only twice in the country's subsequent history. The crop of Indian corn was the largest on record; this, too, found a ready and profitable export

market. Cattle raised on the interior farms were sent abroad in such numbers that the foreign trade complained that British graziers were being forced out of the British market. By a rather remarkable coincidence the famous tide-water pipe-line from the Pennsylvania oil-wells was completed in 1879, and the year's export of this product rose nearly two million barrels over the highest previous record. By another coincidence, equally independent of any events already noticed, the cotton crop of India fell off 30 per cent from the autumn stock of 1878 and 50 per cent from 1877, and with the consequent heavy purchases by foreign spinners, the season's export of American cotton was the largest ever yet recorded.

The first result of this sudden change in the situation was a fall in the foreign exchanges, and consequent dissipation of all fears that the resumption fund would be impaired. With this menace removed from the financial outlook, the country's torpid enterprise awoke. The trade revival which ensued was without question the most remarkable in this country's commercial history.

110. CONSTITUTIONALITY OF THE LEGAL-TENDER NOTES.[1]

By DAVIS R. DEWEY

For some time after the issue of the greenbacks there was uncertainty as to the legal-tender attribute of the treasury notes, and questions quickly arose which required settlement in the State and federal courts. The trend of the decisions of the Supreme Court from the first was toward a limitation of the notes: In *Lane County* v. *Oregon* (1868) it was held that the notes were not legal tender for State taxes; in *The Bank* v. *Supervisors* (1868) that they were obligations or securities, and consequently exempt from taxation; and in *Bronson* v. *Rodes* (1868) that they were not legal tender in the settlement of contracts specifically calling for the payment of specie. Finally the more direct question of constitutionality was passed upon by the Supreme Court in 1869 in the case of *Hepburn* v. *Griswold.* In 1860 a Mrs. Hepburn in a promissory note agreed to pay Griswold on February 20, 1862, $11,250. At each of the above dates the only lawful money was gold and silver coin. Mrs. Hepburn failed to pay the note at maturity, and upon a suit brought in Kentucky, in March, 1864, tendered payment in United States notes which had been issued

[1] Adapted from *Financial History of the United States*, pp. 362–67. (Longmans, Green, & Co., 1903.)

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February 25, 1862, that is, five days after the maturity of the note. The tender was refused. An appeal was carried to the United States Supreme Court, and a decision rendered in December, 1869. The opinion by a fateful stroke of fortune was delivered by Chief Justice Chase, in whose administration as secretary of the treasury the notes had been first issued. The legal-tender quality was denied; yet the whole question was not covered, because the case involved only the tender of notes in settlement of contracts entered on previous to the first legal-tender act; and Chase, in the declaratory portions of the opinion, was careful to limit the application of the decision to such contracts. Nevertheless the court clearly indicated its conviction on the question of the constitutionality of notes tendered in the settlement of current contracts, for it practically asserted that the legal-tender clause was not only improper, but unnecessary. "Amid the tumult of the late Civil War, the time was not favorable to considerate reflection upon the constitutional limits of legislative or executive authority. If power was assumed from patriotic motives, the assumption found ready justification in patriotic hearts. Many who doubted yielded their doubts; many who did not doubt were silent. Some who were strongly averse to making government notes a legal tender felt themselves constrained to acquiesce in the views of the advocates of the measure. Not a few who then insisted upon its necessity, or acquiesced in that view, have, since the return of peace, and under the influence of the calmer time, reconsidered their conclusions, and now concur in those which we have just announced." Three justices concurred with Chase in the majority opinion, while a dissenting opinion was rendered by Justice Miller in which two of his associates joined, thus dividing the court, four to three.

The decision was unpopular. The close division of the court, when it was not complete, was an irritating factor, to say nothing of the disturbance to business if gold payments were to be enforced. A second case, *Knox* v. *Lee*, subsequently came before the court, but before the decision was rendered in May, 1871, the membership of the court was changed by the addition of two members, one to fill a vacancy, and the other through a statute enlarging the court from seven to eight. Inasmuch as on this occasion the decision of 1869 was reversed, there have been charges that the court was packed in order to bring about the reversal. The evidence on this point has been carefully examined by Professor Hart in his biography of Chase, and the charges of collusion clearly shown to be unfounded. That the

new justices would be in general accord with the administration was to be expected; there was, however, no previous understanding of their views on the particular question of legal tenders, and no instructions to bring about a reversal of the earlier decision. Nevertheless, it must be admitted that there was a strong popular expectation that as soon as the court was reorganized, a reversal of the opinion would be made. This is seen in the fact that the first decision did not lead to a reduction in the premium on gold, and the exceptional methods adopted by the court in order to bring another case quickly before it for adjudgment showed unusual feeling and pressure.

In the opinion on the case of 1871 (filed in 1872), the court held that a broad interpretation must be given to the Constitution, for it could not be expected that this document would completely enumerate all the powers of government with details and specifications; the powers of Congress must be regarded as related to each other, and means for a common end. Among the non-enumerated powers, there certainly must be included the power of self-preservation, and no reasonable construction of the Constitution could deny to a government the right to employ freely every means not prohibited, or necessary for its preservation. And in carrying out its purpose Congress is entitled to a choice of means which are in fact conducive to the exercise of a power granted by the Constitution. Marshall's words in the decision on *McCulloch* v. *Maryland* are cited as convincing and conclusive. "Let the end be legitimate, let it be within the scope of the Constitution, and all means which are appropriate, which are plainly adapted to that end, which are not prohibited, but are consistent with the letter and spirit of the Constitution, are constitutional."

There were two main questions for the court to consider: Were the legal-tender acts inappropriate means for the execution of any or all of the powers of the government? And were they prohibited by the Constitution? As to the first question, the emergency was great when the legal-tender acts were passed; the endurance of the government had been tried to the utmost. "Something revived the drooping faith of the people; something brought immediately to the government's aid the resources of the nation, and something enabled the successful prosecution of the war and the preservation of the national life. What was it, if not the legal-tender enactments?" As to whether other means might not have been effective, that was not

for the courts to decide; the degree of appropriateness of given laws is for the legislature and not for the judiciary to determine.

On the second point the court held that the making of the treasury notes a legal tender was not forbidden either by the letter or by the spirit of the Constitution. Although certain express powers are given to Congress in regard to money, it cannot be inferred, as the Constitution has been in general construed, that all other powers are by implication forbidden. Since the States are expressly prohibited from declaring what shall be money, or from regulating its value, whatever power exists over the currency is vested in Congress. Considering that there is no express prohibition upon Congress in this matter, and that paper money was almost exclusively in use in the States as the medium of exchange, it must be presumed that the framers of the Constitution did realize that emergencies might arise when the precious metals would prove inadequate to the necessities of the government.

Nor could it be argued that the legal-tender acts are unconstitutional because they directly impaired the obligation of contracts, that is, of contracts made previous to the passage of the act. In contracts for payment of money, it did not mean money at the time when the contract was made, nor gold or silver, nor money of equal intrinsic value in the market; the obligation was to pay that which is recognized as money when the payment is to be made. "Every contract for the payment of money simply, is necessarily subject to the constitutional power of the government over the currency, whatever that power may be, and the obligation of the parties is therefore assumed with reference to that power." More than this, Congress does have the power to impair contracts indirectly by rendering them fruitless or partly fruitless, as in bankrupt laws, declaration of war, and embargoes. No obligation of a contract can extend to the defeat of legitimate government authority.

In conclusion, it was observed that the legal-tender acts did not attempt to make paper a standard of value; their validity does not rest upon the assertion that this emission is coinage, or any regulation of the value of money; or that Congress may make money out of anything which has no value. "What we do assert is, that Congress has power to enact that the government's promises to pay money shall be, for the time being, equivalent in value to the representation of value determined by the coinage acts or to multiples thereof."

This decision settled the question of constitutionality of legal-tender issues in times of war, but it left uncertainty as to the powers of government over currency during peace. The judicial decision on this point was made by the Supreme Court in 1884 in the case of *Juilliard* v. *Greenman;* the question before it was the constitutionality of that provision of the law of 1878 which required that all legal-tender notes redeemed at the treasury be reissued, kept in circulation, and continue to retain their legal-tender quality. The court decided in favor of the constitutionality of such reissues, by a generous interpretation of the doctrine of implied powers, in support of which the reasoning of Marshall, in the case of *McCulloch* v. *Maryland,* is again reviewed at length. As preliminary to the main conclusion, it is shown that Congress has the power to pay the debts of the United States; that in pursuance of this, all means which are appropriate, and not prohibited, are constitutional; that not too much weight should be given to the debates and votes of the Constitutional Convention of 1787, for there is no proof of any general consensus of opinion in the convention upon this subject; that the power to borrow money includes the power to issue obligations in any appropriate form, and, if desired, in a form adapted to circulation from hand to hand in the ordinary transactions of commerce and trade; that the issue of legal-tender notes is incident to the right of coinage; and finally, that Congress has power to provide a currency for the whole country. As a consequence, Congress "may issue the obligations in such form and impose upon them such qualities as currency for the purchase of merchandise and the payment of debts as accord with the usage of sovereign governments"; and it is for Congress, the legislature of a sovereign nation, to declare whether, because of an inadequacy of the supply of gold and silver coin, it is wise to resort to legal-tender paper issues.

The decision reopened the controversy; this was largely academic; Bancroft, the historian, made a passionate protest in a pamphlet entitled, *A Plea for the Constitution of the United States of America, Wounded in the House of Its Guardians;* but popular judgment on the whole was favorable. Lawyers and consitutional commentators were slowly coming to the conclusion that the interpretation of the Constitution must rest upon a broader basis than that of the debates of 1787; and the people at large were satisfied that there was to be no disturbance in the conditions to which they had been long accustomed.

III. THE GREENBACK PARTY PLATFORM OF 1878

WHEREAS, Throughout our entire country the value of real estate is depreciated, industry paralyzed, trade depressed, business incomes and wages reduced, unparalleled distress inflicted upon the poorer and middle ranks of our people, the land filled with fraud, embezzlement, bankruptcy, crime, suffering, pauperism, and starvation; and

WHEREAS, This state of things has been brought about by legislation in the interest of and dictated by money-lenders, bankers, and bondholders; and

WHEREAS, The limiting of the legal-tender quality of greenbacks, the changing of currency bonds into coin bonds, the demonetization of the silver dollar, the excepting of bonds from taxation, the contraction of the circulation medium, the proposed forced resumption of specie payments were crimes against the people, and, as far as possible, the results of these criminal acts must be counteracted by judicious legislation;

Therefore, We assemble in National Convention, and make a declaration of our principles, and invite all patriotic citizens to unite in an effort to secure financial reform and industrial emancipation. The organization shall be known as the "National Party," and under this name we will perfect, without delay, national, State, and local associations to secure the election to office of such men only as will pledge themselves to do all in their power to establish these principles:

First: It is the exclusive function of the General Government to coin and create money, and regulate its value. All bank issues designed to circulate as money should be suppressed. The circulating medium, whether of metal or paper, shall be issued by the government, and made a full legal tender for all debts, duties, and taxes in the United States at its stamped value.

Second: There shall be no privileged class of creditors. Official salaries, pensions, bonds, and all other debts and obligations, public and private, shall be discharged in the legal-tender money of the United States, strictly according to the stipulations of the laws under which they were contracted.

Third: *Resolved*, That the coinage of silver be placed on the same footing as that of gold.

Fourth: Congress shall provide said money adequate to the full employment of labor, the equitable distribution of its products, and the requirements of business, fixing a minimum amount per capita of the population, and otherwise regulating its value by wise and

equitable provisions of law, so that the rate of interest will secure to labor its just reward.

112. THE POPULIST PARTY PLATFORM OF 1896

1. We demand a national money, safe and sound, issued by the General Government only, without the intervention of banks of issue, to be a full legal tender for all debts, public and private; a just, equitable, and efficient means of distribution direct to the people and through the lawful disbursements of the Government.

2. We demand the free and unrestricted coinage of silver and gold at the present legal ratio of 16 to 1, without waiting for the consent of foreign nations.

3. We demand that the volume of circulating medium be speedily increased to an amount sufficient to meet the demands of business and population, and to restore the just level of prices of labor and production.

113. A REVIVAL OF "GREENBACKISM"[1]

An incident of crucial significance in connection with the effort for banking reform is, however, seen in the well-authenticated attempt of Mr. William J. Bryan to secure the adoption by members of the Democratic party in Congress of a banking plan of his own in opposition to each and all of the various rival banking plans that have been thus far suggested. Mr. Bryan's plan relates almost entirely to the issue of notes. He desires to have the power of note issue placed exclusively in the hands of the government, and would require that, in order to get notes, banks be compelled to make a showing that they possess an adequate amount of commercial paper of specified kinds. When this had been demonstrated to the satisfaction of the designated local officers, the government would deposit in the bank making the application circulating notes to an amount equal to that for which the bank had made application. These notes would be redeemable at the Treasury and would constitute a single uniform government currency. On the whole, the plan thus suggested, although refined in various particulars as compared with the various Bryan plans that have been urged in the past, is a revival, under a different name, of the orginal greenback or government legal-tender-currency idea that

[1] Adapted from "Washington Notes" in *Journal of Political Economy*, January, 1913, pp. 75–76.

has figured so largely in times past in connection with the proposals of the radical wing of the Democratic party.

114. NATURAL MONEY, THE PEACEFUL SOLUTION[1]

BY JOHN RAYMOND CUMMINGS

The adoption of a system of natural money such as is suggested below will accomplish the following ends:

1. It will make panics impossible.

2. It will enable the government to take over all the land and all the privately owned public utilities on terms very liberal to present owners, without issuing a bond and without hardship or injustice.

3. It will enable the government to build during the same period a million miles of highway at a cost of $10,000 the mile.

4. To irrigate and drain a large proportion of the area needing irrigation and drainage.

5. To develop tens of millions of horse-power from water and distribute it throughout the country.

6. To develop internal waterways on a scale hitherto unattempted and undreamed of.

7. It will raise wages and end strikes and lockouts. It will establish natural wages and secure absolute equity as between employers and employees.

8. It will pay off the government debt and make future debt impossible.

9. It will end our present industrial warfare and bring all now discordant classes into harmonious co-operation, inaugurating an era of progress and prosperity such as the world has not even conceived of.

For our purpose we will assume an isolated community of a thousand men and their families. We will assume that our colonists brought with them a limited amount of gold and silver, and that they have no thought of inventing or adopting any other than the coin system with which they have been familiar, but they do intend to build a substantial community and desire to have an orderly and efficient government, with the largest possible measure of public benefits and of personal freedom.

Let us assume that they arrive in a body in the early spring, and that for the time being they decide that all work shall be communal.

[1] Adapted from *Natural Money, The Peaceful Solution* (summarized from various chapters). (Bankers Publishing Co., 1912.)

They must have enough houses for protection before the coming winter and must grow food and provender, so they decide that those who are handy with the broadax, saw, and hammer shall assist the few artisans in the building of houses, while the other men, with the assistance of some of the women and the youths, shall grow the crops. But it is understood that when there are houses for all, the work is to be individualistic, except for such work as is of a public character.

When they have reached the point of individual work they hold a meeting and decide that each man of voting age shall render thirty days' public service yearly or pay the equivalent into the public treasury, and shall be subject to call for from one to thirty days additional.

Many individuals rather than perform this public service would prefer to hire substitutes in order to save their own time for the private employments in which they are particularly efficient. The payment for substitutes establishes a minimum common labor wage. In the beginning a man who desired a substitute made arrangements with him and notified the overseer of public works, giving the name of his substitute. The overseer gave the receipts accordingly to the workman, who delivered them to his employer and received his pay; but after a time, probably to save work in making the receipts, they used printed blanks requiring only the filling in of the worker's name and the overseer's stamped signature. These each worker delivered to his employers—the men whose public service he had engaged to work out. The substitutes at first took the receipts in the names of their various employers, one laborer doing the public work for several individuals.

Still later even this was found to be unnecessary, for it involved personal engagements to perform the service, and subsequent settlements of each worker with his employers. Perhaps by the accident of some workman's failure to settle with his employers at the usual time; possibly by the natural and necessary development of the situation, the workmen came to be quite indifferent and careless as to settlements and used the receipts with the grocer, the butcher, the merchant, in fact, everywhere they had dealings.

But most of the receipts were for a week's work, only a few of them being for a less amount, so after a time, on the suggestion of a committee of the workmen, the receipts, or certificates, as they were commonly called, were given in various denominations, from the fourth part of a day to one, two, two-and-a-half, and five-day cer-

tificates, and were printed on their best paper and as ornamentally as their facilities allowed.

Very soon after this was done the certificates constituted the larger part of the circulating medium and the people realized that unwittingly they had invented a new money. Gradually as the volume of the certificates increased, the gold disappeared from circulation and silver was used only as fractional currency. Coin did not disappear by "emigration" nor by hoarding, but by finding its way into the public treasury and remaining there because people preferred the certificates.

Let it be noted that these certificates were not "promises to pay," nor were they money in any legal sense; not legal tender, yet they performed all the functions of money. Probably no one of the colonists ever so much as thought of providing by ordinance that anything should be a legal tender.

Thus this money based on service performed came naturally to be the medium of exchange without anyone even raising a question as to its soundness or safety. The certificates passed current on the same basis as coin (a full-day certificate as $2.00). A purchase of goods from a foreign community, however, raised the question as to the safety of the certificates. It was proposed to use the coin that had accumulated in the government vaults in the purchase of the foreign goods, and this at once provoked discussion as to the basis of the circulation power of the certificates. Some thought that every currency should have a coin basis, and the banker thought that the coin in the community had really served as a basis for the certificates, which passed as token money upon the tacit understanding of a return to coin at any time the certificates might prove unsatisfactory. He was very sure a crisis would come before long if the coin were sent away. He raised the question of limiting the issue of certificates, and soon it was evident that this was the crux of the whole question. How to limit them had never been considered, and now it was evident that this was the one point to be made sure of—if it could be.

A board of experts to determine the limit was suggested, but discussion indicated that a board could not tell how much money was needed any better than a single expert could; that in the very nature of things the amount of currency required cannot be settled abstractly, but is governed only by the demands of trade.

A perfect currency is not only elastic in the sense that it will expand to the fullest requirements of trade, but it is as perfect in

resiliency, for no matter to what extent it has been expanded by temporary demand, it will contract as demand abates.

But all this change must be automatic, and not by the dictum of any man or any number of men; not even by the unanimous vote of all concerned. But how shall we arrange so to regulate the quantity of our money that its value shall remain constant? The answer is simple enough. Hitherto we have been requiring from each male citizen of voting age thirty to sixty days of public service each year, for which receipts have been given. These receipts were not payments for service but acknowledgments of service due and rendered. This little government does not pay for anything. It receives what is due it and gives receipts. These receipts pass current because, being impersonal, anyone who is prepared to surrender them to the amount of his services due is thereby discharged of his obligation; shows that he has rendered the service personally or by proxy. By surrendering them he designates for credit to his own account that part of public service for which the certificates were issued; and the certificates go back to be canceled or to be reissued in acknowledgment of further service.

But hitherto we have done only such public work as estimates called for without any reference to creating a circulating medium, and if this has given us the proper amount to use as money it is simply a happy accident. There is one way and only one way to determine how much public work should be done, and that is to provide employment for all who cannot be more profitably engaged in private employment.

Naturally you will ask how this can be done. It is very simple, as most great truths are. All the change we need to make in our present method is an ordinance authorizing and commanding the board of public works to employ all unskilled laborers who apply, at two certificates per day (as we have been giving), and as many skilled laborers as may be needed, at such compensation as is necessary to secure the number required. While I do not think it important, it may be well for technical reasons to provide in the ordinance that the certificates shall be legal tender.

The way in which this plan will work to accomplish what we seek is this: If at any time, for any reason whatsoever, more than the natural proportion of labor had gone into public work, there would then be less than the natural production of private wealth, and prices of commodities would be above normal because of relative scarcity.

Private employers would then offer somewhat more than the public wage, thus drawing labor away from the public service and restoring the state of balance. On the other hand, should more than the natural proportion of labor be engaged in private production the prices of commodities would fall because of their abundance. Some of the privately employed labor would then be released and would go into public work, restoring the balance. In fact, there will be no noticeable shifting from private to public employment and back again, except of those whose private employment is seasonal in character. The state of balance will be preserved just as the water level in two connected reservoirs, each having variable supply, is preserved, by flow of the water from one to the other.

In a large community, one of many millions, my opinion is that there would be no noticeable shifting from public to private work and back again, except of those laborers who habitually do so because of the irregular character of their private employment. Indeed, we may find that except for those intermittent workers there will be no shifting. I suspect the ultimate development will be that most young men will serve an apprenticeship in public work, and the currency volume will be adjusted by the slightly varying average time they remain. This apprenticeship work, if it all goes into the public service temporarily, should be a very accurate gauge or index of the currency, for if we can imagine a perfectly even standard of business, that is, unvarying prosperity, the demand for money should be in proportion to the number of producers, and the apprentices are the enlisting force in the industrial army.

On the other hand, if there should ever be too many certificates in circulation their value would fall slightly, or business would become more brisk at prevailing prices and workers would be drawn from public to private employment (not many but a few) and cancellation by payment of taxes would bring about adjustment.

To summarize this system of natural money: The ideal money is redeemable by service. It is because all the individuals of a nation owe services to the government and because the surrender of the currency cancels that service, that they receive it in exchange for goods. The last person who gives service or goods in exchange for such money, and then, instead of having it redeemed again, turns it in to pay his taxes, has given it its final redemption. It is not the function of government to redeem money. The money is not a governmental debt, but the government's receipt for a debt paid,

and there is no obligation on the part of the government except to acknowledge it as such receipt and receive it in lieu of service.

D. The Regulation of Government Paper Currency

115. METHODS OF REGULATING GOVERNMENT PAPER

The following methods have been used in regulating the issues of government paper currency:

1. *Full specie reserve method.*—By this method the issuing government retains in its coffers metallic money equal in amount to the paper issued. The paper is thus a true representative currency, serving merely in lieu of so much specie.

2. *Percentage specie reserve method.*—With this method a specie reserve equal to a certain fixed percentage of the paper must be held by the issuer. The amount of paper may be changed with changes in the amount of reserve.

3. *Minimum specie reserve method.*—A certain fixed minimum quantity of specie is held as reserve, and the paper outstanding against this may or may not be increased or decreased.

4. *The uncovered issue method.*—A certain fixed amount of paper may be issued, secured by bonds, etc., and beyond this amount any quantity may be issued if backed by a full specie reserve.

5. *The elastic uncovered issue method.*—This method differs from the above only in that the uncovered issue may be extended in time of emergency.

6. *Property reserve method.*—Land or other real estate, or personalty such as bonds, stocks, etc., may be used as security for government paper currency.

7. *Revenue payments method.*—A free issue of paper money which relies on its acceptability for taxes in lieu of coin to keep up its value.

8. *The deferred convertibility method.*—Notes may be issued promising to pay metallic money at some future date, either definitely fixed, or dependent upon political or other contingent events.

9. *Fiat method.*—The government may give freely issued paper full legal-tender power and command its acceptance in payment of all obligations. It is irredeemable.

10. *Limited issue method.*—The issue may be definitely restricted in amount in order that an active demand may prevent depreciation.

11. *Force of habit method.*—An issue once redeemable may circulate by force of custom after the government has been absolved from the obligation of redemption.

116. IRREDEEMABLE PAPER ALWAYS BAD[1]

By JOHN WITHERSPOON

Irredeemable paper money such as was issued by the Continental Congress and the various state legislatures during the Revolution, that is, paper bills stating that the person holding them is entitled to receive a certain sum specified in them, is not, properly speaking, money at all. It is barely a sign without being a pledge or standard of value, and therefore is essentially defective as a medium of universal commerce. To arm such bills with the authority of the state, and make them a legal tender in all payments, is an absurdity so great that it is not easy to speak with propriety upon it. Perhaps it would give offense if I should say it is an absurdity reserved for American legislatures, no such thing having even been attempted in the old countries. It has been found, by the experience of ages, that money must have a standard of value, and if any prince or state debase the metal below the standard, it is utterly impossible to make it succeed. How can it be possible to make that succeed which has no value at all? In all such instances there may be great injuries done to particular persons by wiping off debts; but to give such money general currency is wholly impossible. The measure carries absurdity in its very face. Why will you make a law to oblige men to take money when it is offered them? Are there any who refuse it when it is good? If it is necessary to force them, does this not demonstrate that it is not good? We have seen indeed this system produce a most ludicrous inversion of the nature of things. For two or three years we constantly saw and were informed of creditors running away from their debtors and the debtors pursuing them in triumph, and paying them without mercy.

117. PAPER MONEY SOUND IN THEORY[2]

By DAVID RICARDO

By limiting the quantity of money it can be raised to any conceivable value. It is on this principle that paper money circulates;

[1] Adapted from *Works*, IV, 222–23. (Philadelphia: William W. Woodward, 1802.)

[2] Adapted from *Principles of Political Economy and Taxation*, 1818 (Gonner's edition), pp. 341–44.

the whole charge for paper money may be considered as seignorage. Though it has no intrinsic value, yet by limiting its quantity, its value in exchange is as great as an equal denomination of coin, or of bullion in that coin. There is no point more important in issuing paper money than to be fully impressed with the effects which follow from the principle of limitation of quantity. It is not necessary that paper money should be payable in specie to secure its value; it is only necessary that its quantity should be regulated according to the value of the metal which is declared to be the standard.

Experience, however, shows that neither a State nor a Bank ever has had the unrestricted power of issuing paper money, without abusing that power; in all States, therefore, the issue of paper money ought to be under some check and control; and none seems so proper for that purpose as that of subjecting the issuers of paper money to the obligation of paying their notes, either in gold coin or in bullion.

118. GUIDES FOR THE CONTROL OF PAPER MONEY[1]

BY CHARLES GIDE

It may be asserted that in the present state of economic science there is no excuse for a government overstepping the limit and issuing irredeemable paper money in excess. There are several signs, familiar to the economist and the financier, which should warn us of the danger, even when it is far off, and which are surer indications than the pilot obtains from sounding-lead and landmarks.

1. The first of these signs is the premium for gold. As soon as paper money has been issued in quantities too great for the needs of a community, it begins (by virtue of the universal law of value) to be depreciated; the first effect of this depreciation, the first sign that that is coming, although the general public may not be aware of it, is that metallic money begins to command a premium.

2. The second sign is a rise in the rate of exchange. Bills payable abroad, i.e., foreign bills of exchange, are sold in all the great commercial centers of the world. Like any other commodity, they have a market price that is quoted at the stock exchange; this is called the rate of exchange. These bills, or claims on foreign countries, are always payable in gold or silver, generally in gold, because gold is the international money. If, for example, the United States is under a paper-money system and its paper begins to be depreciated,

[1] Adapted from *Principles of Political Economy*, 1888 (Veditz translation), pp. 270–73. (By permission of D. C. Heath & Co., who hold the copyright.)

bills on London or Paris will rise in price just like gold itself, since they are in fact equivalent to gold.

3. The third sign is the flight of metallic money. However slight the depreciation of paper money may be (and unless this defect is immediately remedied by the withdrawal of the excessive paper), all metallic money will speedily disappear from a country. This phenomenon is invariable and therefore characteristic; it occurs in all countries where paper money has been issued in excess.

4. The fourth sign is a rise in prices. This appears later on, and shows that the evil has already become a grave one, and that the permissible limit has been greatly exceeded. While the depreciation is still slight, say 2 or 3 per cent, prices (except those of the precious metals) are not affected. Retail dealers, and even wholesale dealers, will not alter prices for so trifling a difference as this; and even if they did so, the public would not worry about it. But whenever the depreciation of paper money reaches 10, 15, or 20 per cent, then all tradesmen and all producers raise their prices correspondingly. The evil, which until then has been latent, suddenly bursts forth and is revealed to all.

5. Finally, we must note that the old prices continue the same for those persons who can pay in metallic money, if there is any of it left. For metallic money has lost none of its former value; on the contrary, compared with paper money it has gained. Hence we observe the curious phenomenon of two different sets of prices for commodities. Every article now has two prices, one payable in metallic money, the other in paper money. The difference between the two prices exactly measures the depreciation of the paper money.

As soon, therefore, as a government perceives the premonitory signs, namely, a premium for gold and a rise in the rate of exchange, its first duty is absolutely to forbid the emission of any more paper money, since the extreme limit has already been reached. If this limit has unfortunately been overstepped, and we discover the ominous symptom of double prices, it must endeavor to retrace its steps and destroy the paper money that returns to the public treasury until there is the right amount in circulation. Such a heroic remedy as this, however, involving the partial suppression of the national revenue, is not within the power of all governments. They cannot resort to it unless they can afford to sacrifice a part of their revenue; in other words, the public revenue must be in excess of public expenditures.

119. PAPER MONEY AND THE FOREIGN EXCHANGES

BY FRANCIS A. WALKER

One of the most important phases of the subject of paper money is its relation to the International Exchanges. By the mere fact of the adoption of this kind of money, a country loses all the advantages of an automatic regulation of the money supply through the normal movements of trade. Paper money finds no outlet in international commerce. It cannot be exported and retain its value. Hence its regulation becomes purely mechanical. Having no natural cost of production, it will not, if in excess in any country, flow away in obedience to the law which governs the distribution of a money having acceptance abroad equally as at home; but, if issued in excess, it can only be removed by being pumped out by the same force which originally issued it, at least until the stage of utter popular repudiation is reached.

Even where the excess of such paper money over what would have been that country's distributive share of the world's money be not enough to produce grave disturbances of domestic industry, the effect on foreign trade will yet be momentous. The immediate result of any excess must be to establish a premium upon that metallic money in which alone foreign balances can be paid.

To one who is not familiar with the largest operations of commerce this may seem a small matter; yet if we may trust those who are best qualified to decide such questions, the money of a commercial state cannot depart, even by the narrowest interval, from the money in which international balances are discharged, without creating obstructions, exciting apprehensions, and even occasioning losses, to which modern trade, with its highly developed and acutely sensitive organization, will not submit, or will do so only upon the payment of heavy fines by the offending community.

During the German War, and for some years after, viz., from 1871 to 1877, the notes of the Bank of France were inconvertible; yet such was the sagacity and prudence of the directors of that institution that at no time was there any considerable discount on that money, the premium on gold often being but a small fraction of 1 per cent. Yet, slight as was the disturbance of the domestic circulation thereby produced, Mr. Bagehot, in his standard work,

[1] Adapted from *Political Economy*, pp. 173–74. (Henry Holt & Co., 1883.)

Lombard Street, written during the period of suspension, attributes to it the most momentous consequences.

"The note of the Bank of France," he says, "has not, indeed, been depreciated enough to disorder ordinary transactions. But any depreciation, however small, even the liability to depreciation, without its reality, is enough to disorder exchange transactions. They are calculated to such an extremity of fineness, that the change of a decimal may be fatal, may turn a profit into a loss. Accordingly London has become the sole great settling house of exchange transactions in Europe, instead of being, as formerly, one of two."

VI

THE STANDARD QUESTION: THE SILVER MOVEMENT IN THE UNITED STATES

Introduction

The discussion of bimetallism in chapter iv ended, so far as the United States was concerned, with the year 1873. The present chapter is a continuation of our bimetallic history and treats of the acute stage of the controversy that followed close upon the general demonetization of silver by the leading countries of the world. The reason for having broken the continuity of the discussion by introducing the chapter on paper money is that in the United States the "greenbackers" and the "silverites" possessed in many respects a common philosophy—actually joining forces, in the main, after 1878. An understanding of the greenback movement is, therefore, essential to an appreciation of the last stage in the bimetallic controversy in this country.

The silver movement began about 1875, when it was discovered that the standard silver dollar was no longer coinable at the mints. For many years prior to 1873, when the silver dollar was dropped from the list of coins that might be struck, the legal ratio of silver to gold had been 16 to 1 while the market ratio was around 15.6 to 1. There was consequently no incentive to coin silver, and none had in fact been coined for generations, except a small quantity for use in oriental trade. But when silver fell in value in 1874 and 1875 so that the market ratio became 16+ to 1, it was promptly presented to the mints for coinage, where minting into standard silver dollars was of course refused. Immediate indignation was aroused; it appeared that the "surreptitious" demonetization of silver that had occurred was nothing short of a vicious crime engineered by and in the interests of the gold conspirators. By a single act of Congress, unknown to and unsanctioned by the general public, it seemed that the country as a whole had been deprived of a large portion of its national wealth. The controversy over this act of 1873 was bitterly waged for more than twenty years.

The silver party, so called, was composed of numerous elements, with differing points of view, but imbued with a common purpose of securing the recoinage of silver. In this movement the problem of deferred payments became, even on the popular side, more or less differentiated from the mere question of the volume of money. It appears to have been very clearly appreciated that the fall in prices following the war was rendering the repayment of mortgages and other long-time obligations annually more difficult; and the issue between the debtor and the creditor classes, as shown in numerous selections below, was bitterly contested. One cannot fail to be impressed with the sincerity of conviction manifested on both sides; and it is a matter of much significance, as well as interest, that practically every class, even the economists, became largely imbued with a partisan spirit, and very generally impugned the motives of the opposition; the very air seemed charged with feeling.

The result of the silver agitation was to secure a limited coinage of silver and thereby to derange our monetary system for nearly twenty years. It must be said in justice to the advocates of bimetallism, however, that the system did not have a real trial during this period; and their contention in the nineties that a larger rather than a smaller coinage of silver was needed may easily be justified, granting the premise of the bimetallic argument. The state of our currency under the Bland-Allison and Sherman acts served one useful function, however: it demonstrated as nothing else could have done the working of monetary principles and the evils of an uncertain standard of deferred payments.

The issues of 1896 appear to have been settled by the geographical distribution of our population and the relative numerical strength of the opposing *interests*, rather than by logic or virtue or honesty or devotion to the public welfare. And, similarly, the failure of the agitation to arise again since then does not denote so much an increased knowledge of the principles of sound money, as it does a change in the fundamental conditions governing the supply of gold. The productivity of the world's mines since 1896 has given an enormously increased volume of currency, enough at least to dull the edge of that insistent desire for more money which characterizes the true inflationist. At the same time the high prices of the present era serve effectively to remove the grievance of the debtor classes. In fact, it is now a horse of a different color; for it is the creditor class that is feeling the ill consequences of a changing price level.

The quotations from the national party platforms of 1896 and 1912 reveal the complete reversal of opinion on the part of both parties with reference to the underlying relations of money and prices; political expediency still appears to be of more practical significance than analysis or truth.

By way of reviewing the whole history of monetary evolution one should compare the statistics of production of the precious metals at various periods with the monetary controversies that have come and gone. It will be found that monetary history may be very largely explained by reference to the conditions of production of gold and silver at the mines.

A. The Agitation for the Recoinage of Silver

120. THE CRIME OF 1873: THE INDICTMENT[1]

By J. P. DUNN

The bill which was presented to the Senate for amendment and passage contained provision for a standard silver dollar as well as for a trade dollar. In the words of Mr. Sherman: "This bill proposes a silver coinage exactly the same as the French, and what are called the associated nations of Europe, who have adopted the international standard of silver coinage; that is, the dollar provided for by this bill is the precise equivalent of the five-franc piece. It contains the same number of grains of silver, and we have adopted the international gram instead of the grain for the standard of our silver coinage. The "trade dollar" has been adopted mainly for the benefit of the people of California and others engaged in trade with China. That is the only coin measured by the grain instead of the gram. The intrinsic value of each is to be stamped upon the coin." (*Congressional Globe*, 3d sess., 42d Cong., p. 672.)

Human perversity cannot misinterpret this language. It means that the bill provided for two dollars. The one, measured in grams, the standard of our silver coinage, and the other, measured in grains, a special coin for convenience in the Chinese trade. The Senate passed this bill and it was referred to the House, which declined to concur in some of the Senate amendments, thus necessitating a Conference Committee. This committee in reporting to the House and Senate made no reference to the omission of the standard silver dollar

[1] Adapted from "The Silver 'Grievance,' " *Journal of Political Economy*, 1892, pp. 436–38.

from the list of coins that could be struck. This section of the bill had not been amended by the Senate, and therefore was not a section open for adjustment in the Conference Committee. Someone secretly drew the pen through the silver dollar. The fact that it was done in the Conference Committee, where it was not an issue, is the significant point which is usually overlooked by those who hold that there was no intentional deceit.

121. THE CRIME OF 1873: THE DEFENSE[1]

By JAMES T. McCLEARY

The mintage act of 1873 is a subject about which there has been a great deal of misunderstanding. Aspersions galore have been cast upon the methods and the motives of the men who were responsible for its enactment. For twenty years "the crime of 1873" has been held up as one of the most atrocious in the entire political calendar.

The original bill was prepared in the Treasury Department in the winter of 1869–70 by John Knox, then Deputy Comptroller of the Currency, under the direction of George S. Boutwell, then Secretary of the Treasury. The laws relating to the mint had not been revised for more than a generation, and much confusion existed. The first section of the bill was largely a codification of existing law, with such improvements as experience suggested.

Then immediately following, and in the precise place where anyone interested in such legislation or attempting to follow its course would most naturally look for a statement of what was contemplated, was a short paragraph headed in large capital letters: PROPOSED AMENDMENTS. In this paragraph an enumeration of "the new features of the bill" is made. There are twelve different amendments specified—one of which is plainly stated to be "*discontinuing the coinage of the silver dollar.*" This is the clause that has given rise to the long controversy. The bill as thus perfected was introduced in the Senate April 25, 1870, accompanied by a report giving the reasons for its introduction, the method of its preparation, and an explanation of every section in it. (The original bill and the report accompanying it are to be found in the Senate Misc. Document No. 132 of the second session of the Forty-first Congress.)

Section 14 of the bill specified the weight and fineness of the gold coins, and made the gold dollar the unit of value.

[1] Adapted from *Sound Currency*, III, 1896, No. 13, pp. 2–10.

Sections 15 and 18 were as follows:

Section 15. *And be it further enacted*, That of the silver coin, the weight of the half-dollar, or piece of fifty cents, shall be 192 grains; and that of the quarter-dollar and dime shall be, respectively, one half and one-fifth of the weight of said half-dollar. That the silver coin issued in conformity with the above section shall be a legal tender in any one payment of debts for all sums less than $1;

Section 18. *And be it further enacted*, That no coins, either gold, silver, or minor coinage, shall hereafter be issued from the mint other than those of the denominations, standard, and weights herein set forth.

Ask the first twenty free-silverites that you meet, "Did the Act of 1873 ever contain the old standard silver dollar of 412½ grains?" and nineteen of them, if not all, will promptly answer, "Why, certainly, and it was *surreptitiously* dropped out just before the passage of the bill." Many a good man has had his righteous indignation aroused by being told this tale. And very frequently it has been told by men who sincerely believed that such was the case. But, as we have seen, the story is not true. *The 412½-grain dollar was never in the bill from first to last!* Its omission was carefully pointed out in the report accompanying the original bill, and the reasons for the omission were plainly given. The dollar for which the trade dollar was finally substituted was a 384-grain dollar, of limited coinage and tender. The change was made for the benefit of the silver-producers, and at their request, to enable them to find a market for their silver in the East.

And the bill on its final passage was voted for by every man from the Pacific Coast. They had got exactly what they asked for.

That the matter was fully discussed in Congress may be seen by the following extracts from the debates:

On January 9, 1872, in reporting H.R. 5, which (like the original bill, S. 859) contained *no silver dollar of any kind*, Mr. Kelley, chairman of the committee in charge of the bill, said: "The Senate took up the bill and acted upon it during the last Congress and sent it to the House; it was referred to the Committee on Coinage, Weights, and Measures, and received as careful attention as I have ever known a committee to bestow on any measure. . . . . We proceeded with great deliberation to go over the bill, not only section by section, but line by line, and word by word; the bill has not received the same elaborate consideration from the Committee on Coinage of this House, but the attention of each member was brought to it at the earliest

day of this session; each member procured a copy of the bill, and there has been a thorough examination of the bill again."[1]

Mr. Harper on April 9, 1872, for instance, spoke as follows on section 16: "Section 16 re-enacts the provisions of the existing laws defining the silver coins and their weights, respectively, *except in relation to the silver dollar*, which is reduced in weight from 412½ to 384 grains, thus making it a *subsidiary coin* in harmony with the silver coins of less denomination to secure its concurrent circulation with them. . . . . This bill provides for the making of changes in the legal-tender coin of the country and for substituting as legal-tender coins of only one metal instead as heretofore of two. I think myself this would be a wise provision, and that legal-tender coins, except subsidiary coin, should be of *gold alone;* but why should we legislate on this now when we are not using either of those metals as a circulating medium?"

On May 27, 1872, the bill was once more called up in the House by Mr. Hooper for the purpose of offering an amendment in the nature of a substitute.

In view of certain statements which have been going the rounds to the effect that the bill or its substitute was never read, it may not be out of place to state somewhat more fully the events preceding the passage of the act in the House, as they are recorded in the *Globe:*

1. A motion to suspend the rules and pass the bill without reading was defeated.

2. Mr. Hooper then asked that the bill about to be passed be read.

3. The record reads, "The clerk began to read the substitute" (which was the bill passed).

4. Mr. McCormick later said, "I ask that the nineteenth section be read again."

5. After further discussion the bill was passed, yeas 110, nays 13.

The bill was again printed in the Senate on May 29, 1872, and referred to the Finance Committee, from which it was reported back December 16, 1872. After debate, the bill was once more printed in full, with amendments, and was considered by the Senate section by section.

After passing the Senate, January 17, 1873, the bill was sent to the House, and on January 21, 1873, it was again printed with amendments. Subsequently conference committees were appointed, consisting of Messrs. Hooper, Houghton, and McNeely of the House, and

[1] *Congressional Globe*, C, 322.

Senators Sherman, Scott, and Bayard of the Senate. The reports of the Conference Committee were agreed to, and the bill became a law on February 10, 1873.

122. AN ECONOMIST'S VIEW OF THE ACT OF 1873[1]

By FRANCIS A. WALKER

As one who has read a good deal upon both sides of this subject, I do not believe that any fraud was committed or intended by the Act of 1873. Very few people knew what the monetary system of the country was by law. Our public men had almost no training in economics or finance. The general public had not had its attention at all called to the subject of the standard. Some committeeman, or some few committeemen, ran the pen through the silver dollar; and the thing was done. The measure passed through the usual course; the bill was duly "read" the regular number of times; and without debate the demonetization of silver was effected.

But while I am disposed to discredit the allegations of sinister motives, it seems to me, nevertheless, that the silver men have a grievance. No man in a position of trust has a right to allow a measure of such importance to pass without calling attention sharply to it. Everyone knows that but few men upon the floor of Congress read the text of one in twenty of the bills they have to pass upon; and it is the duty of the committees dealing with any class of subjects to see to it that every proposal is fully explained to Congress and to the country. They are not discharged of their obligations simply by giving members an opportunity to find it out for themselves.

123. THE TRADE DOLLAR[2]

By A. PIATT ANDREW

During the sixties the United States suddenly developed silver resources second only to those of Mexico; and Congress, desirous of assisting American mine-owners to secure an Oriental market for their product, in 1873 consented to their having their silver stamped at the government mint into coin adapted for the Eastern trade. So great was the foreign demand for Mexican dollars at this time that they continually commanded a premium; and, as the Mexican govern-

[1] Adapted from "The Free Coinage of Silver," *Journal of Political Economy*, I (1892), pp. 169–70.

[2] Adapted from *Quarterly Journal of Economics*, XVIII (1903–04) 329–31.

ment levied a tax of 8 per cent upon their export, there was every reason to believe that the new American coins, which could be freely exported, and which would be more accurate in mintage and superior in bullion value to the Mexican dollars, would meet a real demand in the East, and might even supersede the Mexican coins in those parts. The ordinary American dollar, containing 371¼ grains of pure silver, had never been well received in China on account of its inferior content. So the new coins were to contain 378 grains, or ¾ of a grain more than the standard of the Mexican dollar. This would make them worth, at the ratio of exchange prevailing when the act was passed, a little more than $1.04 in gold, and would have the double advantage, it was thought, of rendering them acceptable in the Orient without danger of their invading the circulation at home.

The new trade dollars, as had been expected, found a ready market in the East. At Hong Kong and the Straits Settlements, in French Indo-China, and at several Chinese ports they were made a legal tender along with the Mexican dollars; and the California mint soon found difficulty in turning them out fast enough to meet requirements. Within six years after the commencement of their coinage nearly 36 millions had been struck, and in January, 1877, the leading bankers in China reported that there was "evidence powerful enough to convince the most skeptical" that the United States trade dollar has been a success, predicting that "ultimately it will be current all over China." The American dollar was thus making rapid inroads upon the territory of the Mexican dollar and threatening it with very serious competition in the Far East, when unanticipated conditions in America resulted in the abrupt cessation of its coinage and its ultimate withdrawal from the field.

The decline in the price of silver reached such a point in 1877 that the silver in a trade dollar was worth not only less than a gold dollar, but also less than the depreciated paper dollars which constituted the circulating medium of almost the entire country. As a consequence, large numbers of trade dollars began to appear in circulation. These trade coins really had no legal standing in the country, being neither an authorized tender for debts nor receivable at the public treasury. In the eyes of the law they were only discs of metal assayed and stamped at the government mint for foreign use; but they bore on their face the words "trade dollar" and "United States of America," and it was not strange, therefore, that they were frequently given and taken at home at their face value. The

confusion was aggravated in the following year, when Congress ordered the renewed coinage of the old standard silver dollar under the Bland-Allison act (February 25, 1878); for this meant that dollar pieces of even less intrinsic value were to circulate at par under governmental authority. If these smaller silver coins were to be everywhere receivable as equivalent to the gold dollar, it appeared but logical that the larger coins issued from the same mint should not be worth less.

Apprehending the increasing misuse of the trade dollar, the Secretary of the Treasury therefore ordered the discontinuance of its coinage on October 15, 1877; and the ban was lifted upon only a few occasions after that date, when small amounts were coined expressly for exportation. The trade dollars still outstanding in the country continued, however, to be a source of embarrassment, until finally, in 1887, Congress decided to get rid of the anomalous pieces altogether. An act was passed on March 3 of that year authorizing the redemption and recoinage into standard silver dollars of all trade dollars presented during the succeeding six months. The government had coined in all 35,965,924 of them, of which 7,689,036 were withdrawn under the provisions of the act, a considerable number having been reimported after the passage of the act. The vast majority, however, seem destined to remain in the Orient, unrepaired and unreinforced until time and use have accomplished their decay or the melting-pot has consumed them.

124. THE BLAND-ALLISON ACT OF 1878

As early as July, 1876, bills were introduced into Congress for the recoinage of silver, but it was not until 1878 that sufficient strength could be gained to enact a law. The Bland bill, providing for unrestricted coinage of silver at the ratio of 16 to 1, passed the House without debate November 5, 1877, by a vote of 163 to 34. In the Senate there was an extended debate resulting in the Allison amendment, which limited the purchase of silver bullion for coinage to "not less than two million dollars worth per month, nor more than four million dollars worth per month."

The amended bill was unsatisfactory to the silver party in the House, but was finally supported by the silver people in the belief that something was better than nothing, and with the hope that it would be speedily followed by complete bimetallism. On the other hand, it was supported, also, by many of the opposition, who believed that it would be repealed after a short trial. At the same time it appeared a satisfactory solution to those legislators who were anxious

to appease all parties. The measure was thus a welcome compromise all around. President Hayes, however, vetoed the bill, whereupon it was promptly passed over his veto by a vote of 196 to 73 in the House and 46 to 19 in the Senate.

125. THE SHERMAN ACT OF 1890[1]

BY HORACE WHITE

On July 14, 1890, Congress passed an act for the issue of an indefinite amount of legal-tender notes for the purchase of silver bullion. This is commonly called the Sherman Act. The notes were to be redeemed on demand in "coin," either gold or silver, at the discretion of the Secretary of the Treasury, but it was declared in the words of the act to be "the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio or such ratio as may be established by law." This was a hint rather than a command to the Secretary in favor of gold redemption. The notes were declared in the act to be "legal tender in payment of all debts, public and private, except where otherwise expressly stipulated in the contract." In practical effect this was a fresh issue of greenbacks in time of peace, and of unlimited amount. The only restriction was as to the rate of issue, which was to be the sum necessary to pay for 4,500,000 ounces of silver bullion each month at the market price.

The act of 1890 was not grounded upon financial considerations. It was a part of a political trade. In the Senate, April 29, 1896, Senator Teller of Colorado gave what he called the "unvarnished history" of the Sherman Act, which has never been contradicted. He said that the Republicans desired to pass the McKinley tariff bill. The silver men desired to pass a free-coinage bill. The latter had a majority in the Senate, with power to adopt a free-coinage clause as an amendment to the tariff bill and thus compel the House to adopt it or lose the latter bill altogether. They did not follow that plan because they knew that President Harrison would veto a free-coinage bill, even if, in doing this, he should kill the tariff bill. So the silver senators determined to adopt, not a free-coinage measure, which would certainly be vetoed, but the nearest approach to it, and put this measure on its passage ahead of the tariff bill. The Sherman silver bill was then passed by the Republicans as the price for securing the passage of the McKinley tariff bill.

[1] Adapted from *Money and Banking*, pp. 159–60. (Ginn & Co., 1895.)

126. THE SILVER DEBATE OF 1890[1]

By ROBERT F. HOXIE

The typical advocate of free coinage of silver logically began his discussion with a résumé of the present economic conditions. He found a marked depression in agricultural interests, a vast accumulation of debts and mortgages, a depression of mining interests, an era of falling prices, and a widespread feeling of discontent among the masses. He assumed this era of business depression accompanied by falling profits, falling wages, and enforced idleness to be permanent under the present conditions and to be due to certain general causes: (1) a lack of confidence and business enterprise; (2) a low range of prices; (3) increasing indebtedness; (4) the depression of our great silver-mining industry. There were developed four trains of reasoning, more or less dependent, yet quite distinct, to prove in general that the demonetization of silver did actually produce these effects and that its remonetization would remedy these evils.

The first of these may be called reasoning for National Bimetallism; the second, reasoning for Currency Inflation; the third, reasoning in the interest of the Debtor Class; the fourth, reasoning in the interest of a Special Industry. These lines of reasoning will now be examined in order.

A. THE REASONING IN FAVOR OF BIMETALLISM

The reasoning in favor of national bimetallism assumed that the currency laws of 1873 induced the present industrial evils by cutting the nation off from certain benefits and safeguards of the double monetary standard, and that the establishment by law of free silver coinage within the United States alone would restore and maintain the double standard for the nation, with all its assumed benefits. The first step in this reasoning was the proof of the virtues of bimetallism. The arguments advanced were: (1) arguments of sentiment; and (2) arguments of theory. The arguments of sentiment were those most frequently advanced in this debate by all classes of silver advocates. They may be called the universal free-coinage arguments. They are easily understood and appreciated, and may be used effectively by Congressmen to catch the popular ear, though having no economic bearing. In the line of sentimental argument, it was urged that the two metals were made money by the "fiat" of the Almighty.

[1] Adapted from "The Silver Debate of 1890," *Journal of Political Economy*, I (1892–93), 545–73.

Said Senator Teller: "Mr. President, the question presented, not for the American people alone, but for the entire world, is whether we shall do business in the future as we have done business in the past, or until within the last seventeen years, by the use of the two precious metals, not made money by law, not made money metals by the edict of legislative minds, not by the consent of the merchants, but by the fiat of the Almighty, when he created these two metals."

The age and honor of the bimetallic system were frequently brought forward. A striking example is from the speech of Congressman Lane: "Gold and silver should be equally valuable as money. They were so used for over three thousand years and down to 1873. They served together as the money of ancient and modern civilization. They were good enough for Abraham in his day, and Christ himself used coins, not silver certificates, to pay taxes when he was on earth. Gold and silver adorned the Temple of Solomon, and for centuries they have sustained commerce and navigation."

The most effective of these arguments, however, appealed to patriotism. Gold and silver were the money of our fathers, for the bimetallic system was adopted by our first financier, and sanctioned by the framers of the Constitution, as the American currency system. These appeals to sentiment, however, deserve only a passing notice.

Of more weight, but less frequently urged, were the theoretic arguments in favor of bimetallism. It was asserted that this system exerted a powerful influence in keeping steady the value of the monetary unit: first, through the power given to both metals of entering or retiring from the circulation freely; secondly, by making it less possible to manipulate the currency; and thirdly, by giving free play to an automatic adjustment of metallic production to the needs of increasing business; a further argument, on which much stress was laid, assumed that a bimetallic currency is a safeguard against panics, providing adequate means of metallic liquidation in a time of failing confidence, one metal at the present rate of production and growth of business being inadequate as a credit basis. These arguments, with perhaps a single exception in either House, were not combated by the opponents of free coinage.

Another argument in this connection assumed, in direct opposition to the known fact as demonstrated by our failure to secure international co-operation, that the commercial world is eager for the reinstatement of silver and that only the courageous effort of one nation is necessary to enlist world-wide assistance. Senator Vance

expressed this idea in the following words: "I believe that the world is waiting for somebody to begin, and that the moment this great people throw open the doors of their mints . . . . the success of free coinage will be so well assured that the smaller nations of Europe who ardently desire the free coinage of silver money will at once come to the rescue, and that it is only a matter of courage that is required on our part to cease to regard the interested howls of the gold speculators, throw open the doors, and make a beginning."

Whether or not the United States could raise the value of silver seemed an immaterial consideration to many silver advocates. Leaving this question aside, it was vehemently urged that we would find no difficulty in maintaining the two metals in circulation under a free-coinage law. On this point was developed a remarkable contest concerning the existence and action of Gresham's law. A class of silver advocates denied the possible existence of such a law, and as this is a pivotal point in the discussion, liberal quotation may be pardoned. Representative Lane took, perhaps, the most extreme attitude. He said: "This union of the two metals, this blending of them into one standard for practical use, is improperly called the 'double standard,' for in reality it is a single standard of two metals, exactly a combination of the two as one."

This was equaled only by the following: "I believe too that the free coinage of silver will bring gold to us, not drive it away. Money attracts money. Riches produce riches. Wealth has no liking for anything so much as itself. Everything assimilates with its kind. Money is the most social, self-assimilative, and procreative of all material things."

Another and more common position was taken by Senator Daniel: "How is the gold dollar likely to go to a premium over the silver dollar? What condition could exist to drive it to a premium? What use will there be for a gold dollar, making it desirable that a man shall part with more than one silver dollar in order to get a gold dollar? He can pay as much tax with a silver dollar as with a gold dollar. He can discharge as much debt with his silver dollar as with his gold dollar. He can buy as much of any commodity with his silver dollar as with a gold dollar, and why then should he give more for a gold dollar than for a silver dollar?"

A favorite mode of denial was to point to our own experience since 1878. Said Senator Harris: "The experiment of eleven years of a coinage has effectually exploded the argument based upon the idea

that the remonetization and coinage of silver would drive gold out of the country." The question was frequently asked, If 343 millions of silver dollars will not drive out gold how much will? These denials and queries at once lose all force, however, when we consider that the operation of Gresham's law presupposes free coinage, while under our statutes the government reserves the right of coinage to itself, and retains in its vaults, as profit to itself, all seignorage.

The position held by the majority of the national bimetallists was, however, less extreme. They admitted the existence of Gresham's law, but affirmed that its action was confined to limited conditions. Gold, they asserted, could only be driven out by silver dollar for dollar in legitimate trade, and then only when the balance of trade is against us, or we have a surplus of money, or our securities and investments become no longer desirable. These assumptions, one and all, because they ignore the existence of the money broker, and the fact that a metal money may disappear as well in the melting-pot and by domestic hoarding as through the channels of commodity exchange, must be seen to be untenable.

B. THE REASONING FOR INFLATION

We come now to a different class of arguments upheld by men actuated by less worthy motives. For the origin of this class of reasoning in this country we must look to the financial history of the Civil War and the old greenback movement.

The advocacy of silver by the inflationist was based on the old familiar assumption that the quantity of money controls prices and that high prices mean prosperity. This view was supported by the usual assertions that throughout history the prosperous eras have always been periods of high prices; the conclusion of course being that high prices were the cause of the prosperity.

The inflationist accepted unreservedly the idea that it is impossible to have too much money. Said Mr. Perkins: "In my reading, or otherwise, I have never learned of any people who had too much good money to contribute to their happiness, to their support, and to the comfort of their homes. No one ever had too much money for caring for his little ones, for carrying on domestic concerns, which affect the happiness of the fireside of every man."

The line of reasoning of the inflationist was completed by the argument that the degradation of metallic currency is impossible. A plain statement of this position is found in the speech of Senator Pugh:

"The people in no time of our history, and no country in the world's history, ever suffered in trade and commerce or otherwise from having too much coined money in circulation, or as the basis of circulation. Who ever heard of inflation in gold or silver money, or in paper money founded on it for redemption? How can there be depreciation in the unit of money value compounded of gold and silver, so long as the unit is the coin of the government, declared by a law of Congress to have the value of a dollar?"

It will be seen that this assumption was based upon the belief that the value of the monetary unit is independent of the bullion value, but depends solely on the stamp of the government, the legal-tender function given it. Senator Jones, of Nevada, was the most ardent advocate of this theory: "The logic of the situation and the reasoning of all the leading authorities on money lead irresistibly to the conclusion that its value does not reside in the material but *in the stamp;* in other words, on the legal-tender function impressed on that metal. . . . . The commodity value of any material on which the money function may be stamped is too trifling to merit attention. . . . . There was never a dollar coined that did not legally and practically contain 100 cents."

Such being their monetary theory, the primary desire of this class of silver advocates was simply for more money to raise prices. Why did they resort to silver to satisfy their desire? Simply as a matter of expediency. They had no love for silver as such, but it was the cheapest and most abundant substance for which they could gain support, its use would result in more legal-tender currency, and its metallic character would in a measure shield the advocates from being stigmatized as inflationists. Three facts exist which prove that the object aimed at by this class of silver advocates was simply and only more money and not especially more silver money. First, they made no effort toward the remonetization of silver until after the fall in its value in 1876; secondly, the members of this same class exerted themselves to force the reserves held by the government into circulation; and, thirdly, they openly declared that their object could be attained as well by putting fewer grains in the gold dollar.

The inflationists admitted freely that the free coinage of silver would result, not in a bimetallic currency, but in the silver standard of values. In logical keeping with their monetary theories, they hailed the result with pleasure. Having assumed that the value resides solely in the stamp of the government, a cheaper metal is as

stable and costs less to maintain. By resort to the silver standard the United States would make money by disposing of its gold, and also in the enhanced price of silver. "And further," added Senator Jones, "the export of our gold will raise the price for our exported goods." Such was the reasoning for inflation in the silver debate of 1890.

C. THE REASONING IN FAVOR OF THE DEBTOR CLASS

The train of reasoning in favor of the debtor class is closely allied to that which was urged in favor of currency inflation. Both proceeded from a desire for more money and higher prices, but while the inflationists emphasized the benefits of rising prices, this class called especial attention to the evils of falling prices. The two lines of reasoning might be called complementary. The supposition at the foundation of the reasoning for the debtor class was that the depression under which the country labored had been caused by a contraction of the currency (producing lower prices and so decreasing debt-paying power) due to the silver legislation of 1873. The per capita circulation was not sufficient for the needs of trade.

The contraction of the currency being assumed, the silver advocate proceeded to emphasize the evils resulting therefrom. The following from a speech of Senator Jones is a characteristic example: "It is my firm conviction that the inexpressible miseries inflicted upon mankind by war, pestilence, and famine have been less cruel, unpitying, and unrelenting, than the persistent and remorseless exaction which this inexorable enemy has made upon society. As the volume of money contracts, prices decline, and with the decline of prices comes stagnation of industry. . . . . Stores, workshops, and factories, unoccupied and unused, are found on every hand. Crime increases, bankruptcies multiply, and even though the aggregate of wealth augments, it is unjustly distributed, and is consequently barren of results."

A careful examination of the statements on this subject seems to show that the silver advocates attributed the evils of contraction to two causes: first, the raising of the standard of deferred payment (by the fall of prices) and consequent increase of burdensome indebtedness; and, secondly, the decrease of loanable capital.

The reasoning in favor of the debtor classes was completed by an attempt to prove the justice of free silver as a remedy for the evils of contraction. The arguments were (1) theoretic, (2) technical, and (3) moral.

(1) It was urged that gold had risen in value, while silver, instead of falling, had maintained a remarkable steadiness as compared with the value of staple commodities. The belief that gold had risen followed logically from the postulate that credit must bear a fixed proportion to metallic money. If this be true, and the law of 1873, as was claimed, had cut off one-half the metallic basis, the increasing monetary work of the world was thrown upon the remaining metal, and its rise in value followed naturally. The steadiness in the value of silver was plausibly maintained by reference to tables of prices dating from 1873.

(2) Technically it was maintained that there are no obligations in the United States which may not be paid as well in silver as in gold. The Constitution, it was urged, provided for the coinage of gold and silver, and the law of 1873 was in direct violation of this. The Constitution secured the absolute right of the debtor to pay in the cheaper coin. Said Congressman Moore, of Texas: "Congress had no more power to demonetize it than it had to pass an *ex post facto* law." In this connection it was denied with great earnestness that we were actually upon a gold basis.

(3) Finally it was claimed that "this cry for the best money is at last beginning to be recognized for what it is: the cunning device of creditors to catch the conscience of the people and play upon the sense of fairness that characterizes the great mass of mankind."

To crown the argument the cry was raised that the limited coinage of silver is an unjust discrimination against the people's money: "Silver is the money of the people, the common people, not of the speculators, not of the wealthy men, not of the kings and princes and potentates. It is the money of the people and has been the money of the people so long and so far back in the history of the race as we have any record of whatever."

It seems almost incredible that this train of reasoning, its assumptions based on error in fact, its postulates on error in theory, and its conclusion leading directly and inevitably to repudiation, could have found supporters in the Congress of the United States, yet it was maintained vigorously by the leaders of the silver party in both Houses and with far more energy than it was opposed.

D. THE REASONING IN FAVOR OF A SPECIAL INDUSTRY

By the close of the last decade the persistent fall in the market value of silver had convinced the mine-owners and all those dependent

on subsidiary employments that the only hope of restoring prosperity to the silver-mining industry lay in immediate and decisive action of Congress in the direction of greater silver coinage. Thus was added a powerful wing to the free-coinage party in the Fifty-first Congress. The Congressmen from the Far West were among the most insistent advocates of free coinage. The arguments they brought to bear in behalf of this industry resulted in a plausible chain of reasoning. At the outset this reasoning assumed the postulate of the National Bimetallist, that the legislation of 1873 caused the fall in the value of silver. It was then argued that the prosperity of the whole country is so intimately connected with the silver industry that the depression forced upon it by hostile legislation had spread throughout the nation. This idea was vigorously expressed by Delegate, now Senator, Dubois, of Idaho: "The West is pouring in upon the East $95,000,000 annually in gold and silver. This has been a steadily swelling stream for forty years. What would your country have been without it? You might have had one railroad to St. Louis or Chicago now, and your business would have been swapping loopholes for tobacco and burning corn for fuel, as of old. . . . . The farmers made a profit by their labor all through the great war; they continued to prosper for eight years after the war closed. But a blight came upon them. What was it? What caused it? The chief function of silver, that of money, the perfect measure of values, was taken from it. So soon as that dishonor was cast upon it as compared with gold it began to fall in value. . . . . But silver is a royal metal, and as it has gone down it has carried every other product of industry with it in precisely the same ratio."

The true animus of this whole train of reasoning, which many wished to conceal, was in fact a desire for protection to a particular industry. By some this was plainly confessed. The silver miners, they said, had built up the industry and the country on the supposition that free coinage would continue. They had a right to expect its continuance, for had it not the sanction of the Constitution and the usages of centuries? Its restoration would be only justice. Said Senator Stewart: "There is not a silver dollar in the United States that will not bring one hundred cents in gold. The United States buys 412½ grains of bullion for eighty-two cents, and coins it into a dollar and makes the difference. Why should not the owner of the bullion, as formerly, have it coined and save the loss?"

Further, it was argued that there is no reason why the United States should not protect the silver industry as well as other industries. The mining states had aided to protect eastern industries—turn about is fair play.

127. THE VIEWPOINT OF THE DEBTOR MASSES[1]

By D. W. VOORHEES

It may be stated without the slightest fear of contradiction that the attack upon silver money in this and other countries is based upon no demerit or unsoundness on its part, but is simply a movement for the contraction of the currency. This movement is made by the moneyed classes who wish to increase the purchasing and interest-gathering power of money in their own hands by making it scarce in the hands of others; by people with large incomes growing out of monopolies protected by unjust legislation; by those who enjoy annuities, interest on public securities, fixed salaries under great corporations, and by the creditor classes in general, including all the enormous loan associations, who join in the movement of silver destruction and financial contraction in order to enhance twofold, and more, the value and power of the money they wring from the hands of the laboring people. This will result in the practical enslavement of those who are in debt and who toil for a living. The policy of contraction is the policy of organized, unsparing, pitiless avarice.

128. THE VIEWPOINT OF THE CREDITOR CLASSES[2]

By FRANCIS A. WALKER

The inflationists, like the poor, we have always with us. Political education, the growth of sound economic ideas, the establishment of manufactures, trade, and banking will do much to diminish the number of the members of this class; but humanity will have to pass through many more stages of refinement and education before that element will be entirely eliminated. The instinct of spoliation and confiscation, the passion for making something out of nothing and much out of little, the desire to pay debts in depreciated currency, are too deeply implanted in poor, fallen human nature to give way altogether, either to ethical instruction or to demonstrating that in the

[1] Adapted from "A Plea for Free Silver," *North American Review*, CLIII (1891), 529–30.

[2] Adapted from *Journal of Political Economy*, I (1892–93), 166.

long run honesty is the best policy. There are tens of thousands of people in Massachusetts today who, if removed west of the Mississippi, or only even beyond the Alleghanies, would be rampant inflationists, but are here overawed by the dominant sentiment of the community, or are silent because they see no chance to act with effect in such a hopeless minority.

B. The Results of the Silver Agitation

129. DIFFICULTIES UNDER THE BLAND-ALLISON ACT[1]

It was soon found that there was no demand for more than 30,000,000 or 35,000,000 of silver dollar pieces in circulation as coins. But the provision for the issue of certificates made it possible for some time to force this stream of silver into the channels of circulation without serious difficulty, because owing to the price of bonds, the national bank circulation began about this time to contract.

The banks, however, were not partial to the new currency, and objected to the use of silver or silver certificates in their clearing-house transactions; and though legislation in 1882 made it impossible for the banks thereafter formally to refuse to accept the silver or certificates for clearing-house balances, as a matter of fact in the larger clearing-houses silver has not been used. Nor have the banks cared to carry any large proportion of their reserves in silver or silver certificates.

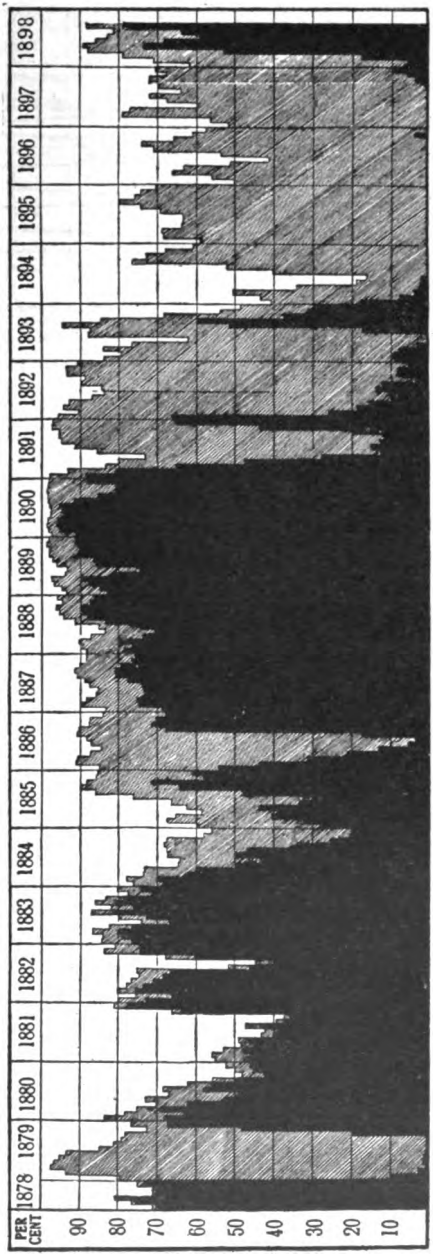
As the first certificates were not issued in denominations below $10, the Treasury soon found it difficult to force into the channels of circulation paper representing the $2,000,000 or $2,500,000 which were being coined each month. Consequently, an embarrassing amount of silver and paper representing it began to accumulate in the Treasury in spite of the most persistent efforts to force it out, involving the payment of express charges on vast sums in the years 1882–86. In 1885 the Treasury inaugurated the policy of retiring the $1 and $2 United States notes in order to make a vacuum in the circulation to be filled by silver dollars. During the fiscal year 1886, the amount of United States notes of $1 and $2 outstanding was reduced by $14,439,000. In the same period the silver dollars in circulation increased $13,998,000. Meanwhile the accumulation of silver in the Treasury had grown from $39,000,000 in 1884 to $64,000,000 in 1885,

[1] Adapted from *Report of the Monetary Commission of the Indianapolis Convention* (1898), pp. 141–42.

and to $93,000,000 in 1886, at which time over half of the large available cash reserve in the Treasury was in silver dollars.

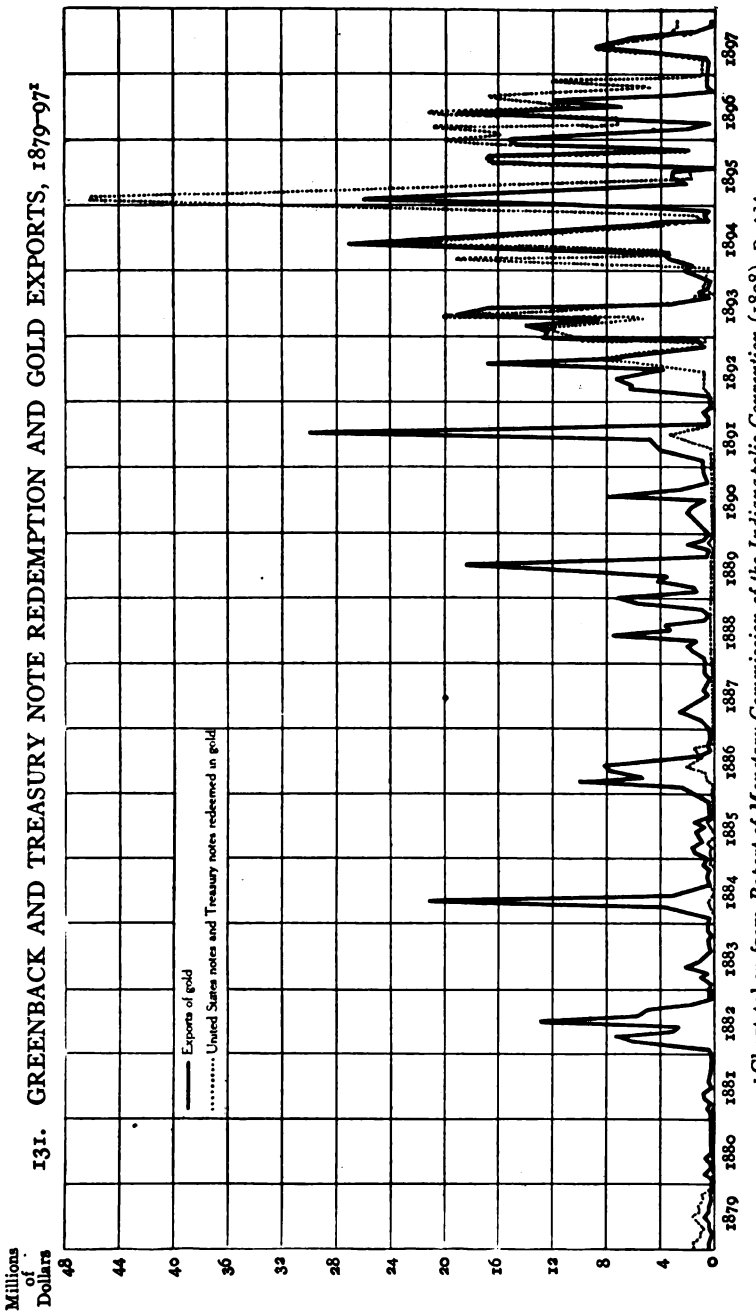
In 1886, the Treasury, for its protection against the threatening danger that it would itself have to accept and care for the entire further coinage of silver dollars, secured the enactment of legislation permitting the issue of silver certificates in denominations of $1, $2, and $5. By the use of these certificates it has since been possible to keep in actual circulation, irrespective of the bank reserves, the larger part of the silver coinage.

130. CURRENCY RECEIPTS FROM CUSTOMS DUTIES, 1878–98[1]



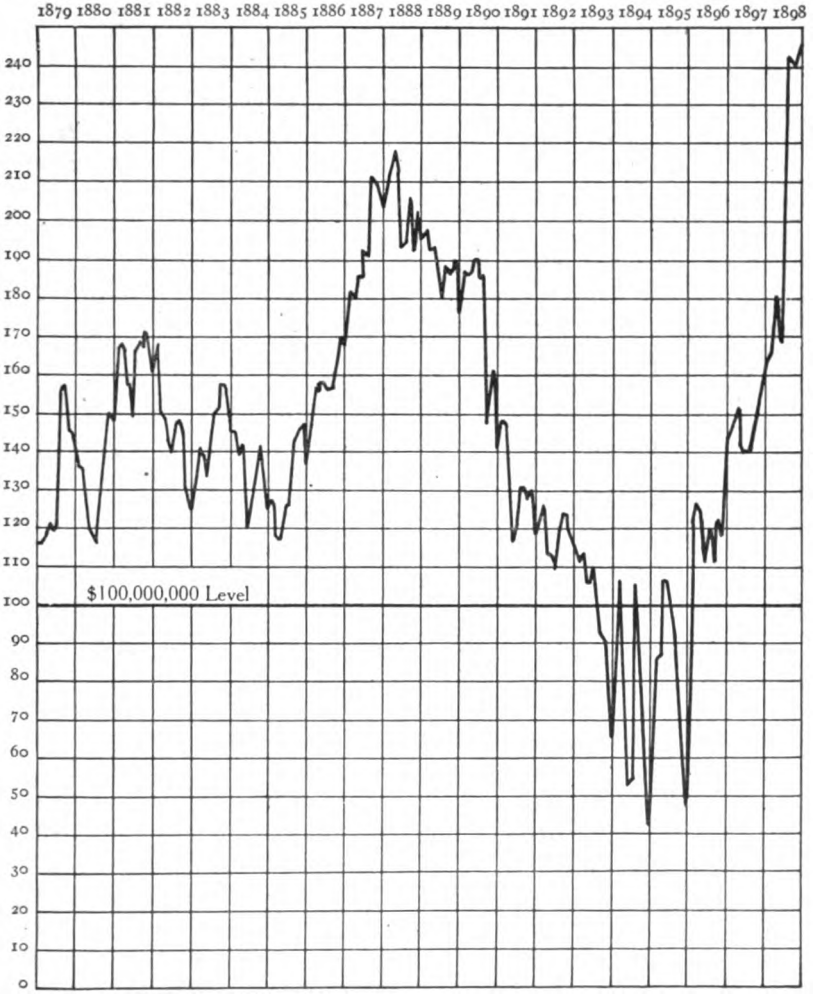
[1] Chart taken from W. M. Burke, "Bond Issues and the Gold Reserve," *Sound Currency*, VI (1899), 22.

131. GREENBACK AND TREASURY NOTE REDEMPTION AND GOLD EXPORTS, 1879–97[1]



[1] Chart taken from *Report of Monetary Commission of the Indianapolis Convention* (1898), p. 434

132. NET GOLD RESERVE IN THE TREASURY 1879–98[1]



133. THE SILVER SITUATION AND THE PANIC OF 1893[2]

The act of 1890 had scarcely been passed when gold exports began to increase. These gold exports coincided very nearly with redemptions of the United States notes presented to the Treasury.

[1] Chart taken from W. M. Burke, "Bond Issues and the Gold Reserve," *Sound Currency*, VI (1899), 21.

[2] Adapted from *Report of the Monetary Commission of the Indianapolis Convention* (1898), pp. 436–40.

There were three chief causes for these unusual withdrawals of gold: (1) demands arising out of trade conditions; (2) demands due to withdrawals of foreign investments; (3) interest payments on foreign capital.

The demands for gold which arose from the general condition of trade were the result of a long series of events. Business in the United States prior to 1890–93 had been exceedingly active, profits had been high, overconfidence and speculative enterprise were common. The result of all these had been a tendency to extravagant expenditure and had resulted in large importations of goods. At the same time, our ability to pay had been considerably diminished. A considerable portion of the annual indebtedness of the United States is liquidated by the shipment of agricultural products. The price of these products had been steadily declining in the markets of the world and, our income being decreased, our ability to pay had in this way been diminished. The result could only be a transfer of capital, in the form either of specie or of obligations to pay specie.

The second of the causes which have been mentioned, namely, the withdrawal of investments by foreigners, was the real difficulty in the whole situation. The fact that we had been spending more than we earned and importing more than we could pay for would have been of no permanent importance to a wealthy country like the United States had foreigners continued to be willing to loan us capital. The excess of expenditures over income would easily have corrected itself through the operation of the usual mechanism of trade and industry. Just at the time, however, when we most needed capital, a step had been taken which destroyed the confidence of foreign investors in our intention to settle with them honestly. We are normally indebted to foreigners to an extent which is estimated at from $100,000,000 to $350,000,000 annually. But during the latter part of 1892 and during 1893 and the earlier portion of 1894, it is estimated that about $300,000,000 of securities were returned to us by the foreigners who had purchased them. The securities were placed upon the American market and the remittance of the proceeds necessarily resulted in gold shipments. But the worst of the situation was not in a mere temporary sale of our securities, but in the fact that the willingness of foreign investors to loan had received a shock.

This brings us to the third point noted above. Foreigners, being no longer willing to invest their capital in the United States, demanded remittances of money due them on interest account and refused to reinvest this with us. It thus became necessary for us to ship gold

for all three of the reasons mentioned. All these, however, depended on one single fact, the fear of payment of debts by the United States in silver instead of gold.

There was another side to the withdrawals of gold from the Treasury of the United States. The foreign demand has already been considered and it has been shown that this was largely due to distrust of our monetary policy. The same thing occurred at home. Those who had maturing debts which must be liquidated in gold, and those who had government promises to pay coin in their hands, fearing that the word coin might be interpreted to mean silver, brought government notes to the Treasury and obtained gold for the purpose of hoarding it to meet future obligations.

From all sides, then, both domestic and foreign, the Treasury was being drained of its gold, just as would have been the case with a bank whose solvency, or ability to liquidate immediately, was doubted. At the same time its supplies of gold were cut off. Normally this, or any other, government has but one way of obtaining money, that is, by taking it from the people through taxation. And of all our taxes the sort from which we obtain the largest quantities of gold is the customs. But, as we have seen, a decrease in importations was taking place both because of our too great expenditures in the past and of the curtailment of our supplies of purchasing power. The aggregate revenue of the Treasury, depending as it did on our tariff duties, was thus suddenly reduced. This was not the worst. A marked change in the kind of money received in payment of import duties was noticeable. From the very moment of the passage of the Sherman Act, gold receipts at New York in payment of tariff dues began to decrease, and silver and government obligations to pay gold—principally the former—took its place. The gold reserve of the Treasury was thus weakened in several different ways at the same moment. Its obligations were presented for payment; its aggregate of receipts was decreased; and the percentage of gold in these receipts largely fell off, while the percentage of the government's own obligations and of silver largely increased.

134. OUR FINANCIAL DISEASE[1]

BY GROVER CLEVELAND

In July, 1890, an act had been passed directing larger governmental monthly purchases of silver than had been required under

[1] Adapted from the message of President Cleveland to Congress, December 2, 1895.

previous laws, and providing that in payment for such silver Treasury notes of the United States should be issued payable on demand in gold or silver coin, at the discretion of the Secretary of the Treasury. It was, however, declared in the act to be "the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio, or such ratio as may be provided by law." In view of this declaration it was not deemed permissible for the Secretary of the Treasury to exercise the discretion in terms conferred on him, by refusing to pay gold on these notes when demanded, because by such discrimination in favor of the gold dollar the so-called parity of the two metals would be destroyed, and grave and dangerous consequences would be precipitated by affirming or accentuating the constantly widening disparity between their actual values under the existing ratio.

It thus resulted that the Treasury notes issued in payment of silver purchases under the law of 1890 were necessarily treated as gold obligations, at the option of the holder. These notes on the 1st day of November, 1893, when the law compelling the monthly purchase of silver was repealed, amounted to more than $155,000,000. The notes of this description now outstanding, added to the United States notes still undiminished by redemption or cancellation, constitute a volume of gold obligations amounting to nearly $500,000,000. These obligations are the instruments which, ever since we have had a gold reserve, have been used to deplete it.

This reserve had fallen in April, 1893, to $97,011,330. It has from that time to the present, with very few and unimportant movements, steadily decreased, except as it has been temporarily replenished by the sale of bonds.

Among the causes for this constant and uniform shrinkage in this fund may be mentioned the great falling off of exports under the operation of the tariff law until recently in force, which crippled our exchange of commodities with foreign nations and necessitated to some extent the payment of our balances in gold; the unnatural infusion of silver into our currency, and the increasing agitation for its free and unlimited coinage, which have created apprehension as to our disposition or ability to continue gold payments; the consequent hoarding of gold at home and the stoppage of investments of foreign capital, as well as the return of our securities already sold abroad; and the high rate of foreign exchange, which induced the shipment of our gold to be drawn against as a matter of speculation.

In consequence of these conditions the gold reserve on the 1st day of February, 1894, was reduced to $65,438,377, having lost more than $31,000,000 during the preceding nine months, or since April, 1893. Its replenishment being necessary, and no other manner of accomplishing it being possible, resort was had to the issue and sale of bonds provided for by the Resumption Act of 1875. Fifty millions of these bonds were sold, yielding $58,633,295.71, which was added to the reserve fund of gold then on hand. As a result of this operation this reserve, which had suffered constant and large withdrawals in the meantime, stood on the 6th day of March, 1894, at the sum of $107,446,802. Its depletion was, however, immediately thereafter so accelerated that on the 30th day of June, 1894, it had fallen to $64,873,025, thus losing by withdrawals more than $42,000,000 in five months and dropping slightly below its situation when the sale of $50,000,000 in bonds was effected for its replenishment.

This depressed condition grew worse, and on the 24th day of November, 1894, our gold reserve being reduced to $57,669,701, it became necessary to again strengthen it. This was done by another sale of bonds amounting to $50,000,000, from which there was realized $58,538,500, with which the fund was increased to $111,142,021, on the 4th day of December, 1894.

Again disappointment awaited the anxious hope for relief. There was not even a lull in the exasperating withdrawals of gold. On the contrary, they grew larger and more persistent than ever. Between the 4th day of December, 1894, and early in February, 1895, a period of scarcely more than two months after the second reinforcement of our gold reserve by the sale of bonds, it had lost by such withdrawals more than $69,000,000 and had fallen to $41,340,181. Nearly $43,000,000 had been withdrawn within the month immediately preceding this situation.

In anticipation of impending trouble, I had on the 28th day of January, 1895, addressed a communication to the Congress, fully setting forth our difficulties and dangerous position, and earnestly recommending that authority be given the Secretary of the Treasury to issue bonds bearing a low rate of interest, payable by their terms in gold, for the purpose of maintaining a sufficient gold reserve, and also for the redemption and cancellation of outstanding United States notes and the Treasury notes issued for the purchase of silver under the law of 1890. This recommendation did not, however, meet with legislative approval.

In February, 1895, therefore, the situation was exceedingly critical. With a reserve perilously low and refusal of congressional aid, everything indicated that the end of gold payments by the Government was imminent. The results of prior bond issues had been exceedingly unsatisfactory, and the large withdrawals of gold immediately succeeding their public sale in open market gave rise to a reasonable suspicion that a large part of the gold paid into the Treasury upon such sales was promptly drawn out again by the presentation of the United States notes or Treasury notes and found its way to the hands of those who had only temporarily parted with it in the purchase of bonds.

In this emergency, and in view of its surrounding perplexities, it became entirely apparent to those upon whom the struggle for safety was devolved not only that our gold reserve must, for the third time in less than thirteen months, be restored by another issue and sale of bonds bearing a high rate of interest and badly suited to the purpose, but that a plan must be adopted for their disposition promising better results than those realized on previous sales. An agreement was therefore made with a number of financiers and bankers whereby it was stipulated that bonds described in the Resumption Act of 1875, payable in coin thirty years after their date, bearing interest at the rate of 4 per cent per annum, and amounting to about $62,000,000, should be exchanged for gold, receivable by weight amounting to a little more than $65,000,000.

This gold was to be delivered in such instalments as would complete its delivery within about six months from the date of the contract, and at least one-half of the amount was to be furnished from abroad. It was also agreed by those supplying this gold that during the continuance of the contract they would by every means in their power protect the Government against gold withdrawals. The contract also provided that if Congress would authorize their issuance, bonds payable by their terms in gold and bearing interest at the rate of 3 per cent per annum might within ten days be substituted at par for the 4 per cent bonds described in the agreement.

On the day this contract was made its terms were communicated to Congress by a special Executive message, in which it was stated that more than $16,000,000 would be saved to the Government if gold bonds bearing 3 per cent interest were authorized to be substituted for these mentioned in the contract.

The Congress having declined to grant the necessary authority to secure this saving, the contract, unmodified, was carried out, resulting in a gold reserve amounting to $107,571,230 on the 8th day of July, 1895. The performance of this contract not only restored the reserve, but checked for a time the withdrawals of gold and brought on a period of restored confidence and such peace and quiet in business circles as were of the greatest possible value to every interest that affects our people. I have never had the slightest misgiving concerning the wisdom or propriety of this arrangement, and am quite willing to answer for my full share of responsibility for its promotion. I believe it averted a disaster the imminence of which was, fortunately, not at the time generally understood by our people.

Though the contract mentioned stayed for a time the tide of gold withdrawal, its good results could not be permanent. Recent withdrawals have reduced the reserve from $107,571,230 on the 8th day of July, 1895, to $79,333,966. How long it will remain large enough to render its increase unnecessary is only a matter of conjecture, though quite large withdrawals for shipments in the immediate future are predicted in well-informed quarters. About $16,000,000 has been withdrawn during the month of November.

The foregoing statement of events and conditions develops the fact that after increasing our interest-bearing bonded indebtedness more than $162,000,000 to save our gold reserve we are nearly where we started, having now in such reserve $79,333,966, as against $65,438,377 in February, 1894, when the first bonds were issued.

Though the amount of gold drawn from the Treasury appears to be very large, as gathered from the facts and figures herein presented, it actually was much larger, considerable sums having been acquired by the Treasury within the several periods stated without the issue of bonds. On the 28th day of January, 1895, it was reported by the Secretary of the Treasury that more than $172,000,000 of gold had been withdrawn for hoarding or shipment during the year preceding. He now reports that from January 1, 1879, to July 14, 1890, a period of more than eleven years, only a little over $28,000,000 was withdrawn, and that between July 14, 1890, the date of the passage of the law for an increased purchase of silver, and December 1, 1895, or within less than five and a half years, there was withdrawn nearly $375,000,000, making a total of more than $403,000,000 drawn from

the Treasury in gold since January 1, 1879, the date fixed in 1875 for the retirement of the United States notes.

Nearly $327,000,000 of the gold thus withdrawn has been paid out on these United States notes; and yet every one of the $346,000,000 is still uncanceled and ready to do service in future gold depletions.

More than $76,000,000 in gold has, since their creation in 1890, been paid out from the Treasury upon the notes given on the purchase of silver by the Government; and yet the whole, amounting to $155,000,000, except a little more than $16,000,000, which has been retired by exchanges for silver at the request of the holders, remains outstanding and prepared to join their older and more experienced allies in future raids upon the Treasury's gold reserve.

135. THE BOND ISSUES AND THE BANKING SYNDICATE[1]

By WILLIAM J. BRYAN

I do not intend to question the motives of the officials who are responsible for this contract with the Banking Syndicate. We might criticize the conduct of the President in excluding all other advisers and consulting only with the magnates of Wall Street; and we might even suggest that he could no more expect to escape unharmed from such associations than one could expect to escape asphyxiation if he locked himself up in a room and turned on the gas; but without questioning the motive of the President, I say, we have a right to express our judgment as to whether the discretion vested in the President has been wisely exercised. We are told that this is not only a business proposition but a very insignificant question, just a little matter of saving half a million a year, that is all.

Will you set a price upon human life? Will you weigh in the balance the misery of the people? What is the value of civilization to the human race?—because the settlement of this "little question" may enormously affect the welfare of mankind. And yet, gentlemen talk about its being a matter of small consequence, a little question, the mere saving of half a million dollars a year. Save the people $16,000,000 in thirty years, twenty-five cents a piece, by this resolution and $16,000,000 will not measure the damage which may result to them in a third of that time.

[1] Adapted from "Seigniorage, Currency, and Gold Bonds," a speech delivered in Congress in 1895.

What is this contract? I am glad that it has been made public. It is a contract made by the Executive of a great nation with the representatives of foreign money-loaners. It is a contract made with men who are desirous of changing the financial policy of this country. They recognize by their actions that the United States has the right to pay coin obligation in either gold or silver and they come to us with the insolent proposition, "We will give you $16,000,000, paying a proportionate amount each year, if the United States will change its financial policy to suit us." They wish to have the interest on these bonds payable in gold, only. Never before has such a bribe been offered to our people by a foreign syndicate, and we ought to so act that such a bribe will never be offered again. By this contract we not only negotiate with foreigners for a change in our financial policy, but we give them an option on future loans. They are to have the option on all bonds which may be issued before the first of next October.

I believe the President has made an inexcusable use of the discretion vested in him. We cannot afford to put ourselves in the hands of the Rothschilds, who hold mortgages on most of the thrones of Europe.

C. The Close of the Silver Controversy

136. THE ISSUES IN 1896[1]

BY A. BARTON HEPBURN

The contentions of the silver men may be summarized as follows:

1. Demonetization of silver had deprived the people of one-half the primary money made available by nature.

2. This great contraction of money, increased by the falling off in the production of gold, had caused the steady downward trend in prices since 1873.

3. The consequent enhancement of the purchasing power of gold enormously increased the obligations of the debtors having deferred payments to make.

4. These unsatisfactory conditions would be aggravated by concentrating upon one metal only the measuring of values and debt-paying power; while the alternative existed of paying either metal, the danger of inordinate enhancement of one was neutralized.

[1] Adapted from *Contest for Sound Money*, pp. 387–88.

5. The farmer was under the gold standard compelled to compete with producers in other lands (India, etc.) where labor was cheap and the silver basis prevailed.

6. The United States should take the lead by opening the mints to free and unlimited coinage of silver, which would surely bring silver to parity and compel other nations to do likewise.

7. The United States required a larger volume of money, and free coinage was the proper way of increasing it, especially as the country produced so much silver.

The international bimetallists generally agreed with the contentions 1 to 4, but insisted that independent action by the United States would defeat the object in view and place the country on a silver basis, to the lasting detriment of all interests.

The gold advocates maintained:

1. That the volume of money had actually increased in greater ratio than population, and that the growing use of credit instruments had added to the media of exchange.

2. That the fall in prices was due chiefly, and probably wholly, to improved methods of production, and had no relation to the demonetization of silver.

3. That producers were also consumers and hence had to pay less for commodities, so that relatively they were not injured by the fall in prices.

4. That the theory of having two standards was a delusion; that only one thing could actually be a standard; that in fact gold was the only standard, silver being measured by it.

5. That free coinage meant depreciated money, than which no device was more potent in cheating both the producer and the consumer. It would precipitate the country upon a silver basis with gold at a fluctuating premium, as in Mexico, not only contracting the volume of money, but causing untold injury to all interests.

6. That Europe would be only too glad to have the United States take up the silver burden alone, enhancing the value of its stock of silver, but would not follow the example.

7. That the volume of money was then greater than the needs of the country, and when greater needs manifested themselves the supply would come from abroad in the shape of gold and from the product of our own mines at home, the output of which was now rapidly increasing.

137. CRUCIFIED ON A CROSS OF GOLD[1]

By WILLIAM J. BRYAN

Mr. Chairman and Gentlemen of the Convention: I would be presumptuous, indeed, to present myself against the distinguished gentlemen to whom you have listened if this were a mere measuring of abilities; but this is not a contest between persons. The humblest citizen in all the land, when clad in the armor of a righteous cause, is stronger than all the hosts of error. I come to speak to you in defense of a cause as holy as the cause of liberty—the cause of humanity.

When this debate is concluded, a motion will be made to lay upon the table the resolution offered in commendation of the administration, and also a resolution offered in condemnation of the administration. We object to bringing this question down to the level of persons. The individual is but an atom; he is born, he acts, he dies; but principles are eternal; and this has been a contest over a principle.

Never before in the history of this country has there been witnessed such a contest as that through which we have just passed. Never before in the history of American politics has a great issue been fought out as this issue has been, by the voters of a great party. On the fourth of March, 1895, a few Democrats, most of them members of Congress, issued an address to the Democrats of the nation, asserting that the money question was the paramount issue of the hour; declaring that a majority of the Democratic party had the right to control the action of the party on this paramount issue; and concluding with the request that the believers in the free coinage of silver in the Democratic party should organize, take charge of, and control the policy of the Democratic party. Three months later, at Memphis, an organization was perfected, and the silver Democrats went forth openly and courageously proclaiming their belief, and declaring that, if successful, they would crystallize into a platform the declaration which they had made. Then began the conflict. With a zeal approaching the zeal which inspired the crusaders who followed Peter the Hermit, our silver Democrats went forth from victory unto victory until they are now assembled, not to discuss, not to debate, but to enter up the judgment already rendered by the plain people of this country. In this contest brother has been arrayed against brother, father against son. The warmest ties of love, acquaintance,

[1] Adapted from *The First Battle* (1896), pp. 199–206.

and association have been disregarded; old leaders have been cast aside when they have refused to give expression to the sentiments of those whom they would lead, and new leaders have sprung up to give direction to this cause of truth. Thus has the contest been waged, and we have assembled here under as binding and solemn instructions as were ever imposed upon representatives of the people.

The gentleman who preceded me [ex-Governor Russel] spoke of the State of Massachusetts; let me assure him that not one present in all this convention entertains the least hostility to the people of the State of Massachusetts, but we stand here representing people who are the equals, before the law, of the greatest citizens in the State of Massachusetts. When you [turning to the gold delegates] come before us and tell us that we are about to disturb your business interests, we reply that you have disturbed our business interests by your course.

We say to you that you have made the definition of a business man too limited in its application. The man who is employed is as much a business man as his employer; the attorney in a country town is as much a business man as the corporation counsel in a great metropolis; the merchant at the crossroads store is as much a business man as the merchant of New York; the farmer who goes forth in the morning and toils all day—who begins in the spring and toils all summer—and who by the application of brain and muscle to the natural resources of the country creates wealth, is as much a business man as the man who goes upon the board of trade and bets upon the price of grain; the miners who go down a thousand feet into the earth, or climb two thousand feet upon the cliffs, and bring forth from their hiding-places the precious metals to be poured into the channels of trade, are as much business men as the few financial magnates who, in a back room, corner the money of the world. We come to speak for this broader class of business men.

Ah, my friends, we say not one word against those who live upon the Atlantic coast, but the hardy pioneers who have braved all the dangers of the wilderness, who have made the desert bloom as the rose—the pioneers away out there [pointing to the west], who rear their children near to Nature's heart, where they can mingle their voices with the voices of the birds—out there where they have erected schoolhouses for the education of their young, churches where they praise their Creator, and cemeteries where rest the ashes of their

dead—these people, we say, are as deserving of the consideration of our party as any people in this country. It is for these that I speak. We do not come as aggressors. Our war is not a war of conquest; we are fighting in the defense of our homes, our families, and posterity. We have petitioned, and our petitions have been scorned; we have entreated, and our entreaties have been disregarded; we have begged, and they have mocked when our calamity came. We beg no longer; we entreat no more; we petition no more. We defy them.

Let me come now to the paramount issue. If our opponents ask us why it is that we say more on the money question than we say upon the tariff question, I reply that, if protection has slain its thousands, the gold standard has slain its tens of thousands. If they ask us why we do not embody in our platform *all* the things that we believe in, we reply that when we have restored the money of the Constitution all other necessary reforms will be possible; but that until this is done there is no other reform that can be accomplished.

Why is it that within three months such a change has come over the country? Three months ago, when it was confidently asserted that those who believe in the gold standard would frame our platform and nominate our candidates, even the advocates of the gold standard did not think that we could elect a president. And they had good reason for their doubt, because there is scarcely a State here today asking for the gold standard which is not in the absolute control of the Republican party. But note the change. Mr. McKinley was nominated at St. Louis upon a platform which declared for the maintenance of the gold standard until it can be changed into bimetallism by international agreement. Mr. McKinley was the most popular man among the Republicans, and three months ago everybody in the Republican party prophesied his election. How is it today? Why, the man who was once pleased to think that he looked like Napoleon—that man shudders today when he remembers that he was nominated on the anniversary of Waterloo. Not only that, but as he listens he can hear with ever-increasing distinctness the sound of the waves as they beat upon the lonely shores of St. Helena.

Why this change? Ah, my friends, is not the reason for the change evident to anyone who will look at the matter? No private character, however pure, no personal popularity, however great, can protect from the avenging wrath of an indignant people a man who will declare that he is in favor of fastening the gold standard upon

this country, or who is willing to surrender the right of self-government and place the legislative control of our affairs in the hands of foreign potentates and powers.

We go forth confident that we shall win. Why? Because upon the paramount issue of this campaign there is not a spot of ground on which the enemy will dare to challenge battle. If they tell us that the gold standard is a good thing, we shall point to their platform and tell them that their platform pledges the party to get rid of the gold standard and substitute bimetallism. If the gold standard is a good thing, why get rid of it? I call your attention to the fact that some of the very people who are in this convention today and who tell us that we ought to declare in favor of international bimetallism—thereby declaring that the gold standard is wrong, and that the principle of bimetallism is better—these very people four months ago were open and avowed advocates of the gold standard, and were then telling us that we could not legislate two metals together, even with the aid of all the world. If the gold standard is a good thing, we ought to declare in favor of its retention, and not in favor of abandoning it; and if the gold standard is a bad thing, why should we wait until other nations are willing to help us to let go? Here is the line of battle, and we care not upon which issue they force the fight; we are prepared to meet them on either issue or on both. If they tell us that the gold standard is the standard of civilization, we reply to them that this, the most enlightened of all the nations of the earth, has never declared for a gold standard and that both the great parties this year are declaring against it. If the gold standard is the standard of civilization, why, my friends, should we not have it? If they come to meet us on that issue, we can present the history of our nation. More than that; we can tell them that they will search the pages of history in vain to find a single instance where the common people of any land have ever declared themselves in favor of the gold standard. They can find where the holders of investments have declared for a gold standard, but not where the masses have.

Mr. Carlisle said in 1878 that this was a struggle between "the idle holders of idle capital" and "the struggling masses, who produce the wealth and pay the taxes of the country"; and, my friends, the question we are to decide is: Upon which side will the Democratic party fight; upon the side of "the idle holders of idle capital" or upon the side of "the struggling masses"? That is the question which the

party must answer first, and then it must be answered by each individual hereafter. The sympathies of the Democratic party, as shown by the platform, are on the side of the struggling masses who have ever been the foundation of the Democratic party. There are two ideas of government. There are those who believe that, if you will only legislate to make the well-to-do prosperous, their prosperity will leak through to those below. The Democratic idea, however, has been that if you legislate to make the masses prosperous, their prosperity will find its way up through every class which rests upon them.

You come to us and tell us that the great cities are in favor of the gold standard; we reply that the great cities rest upon our broad and fertile prairies. Burn down your cities and leave our farms, and your cities will spring up again as if by magic; but destroy our farms, and the grass will grow in the streets of every city in the country.

My friends, we declare that this nation is able to legislate for its own people on every question, without waiting for the aid or consent of any other nation on earth; and upon that issue we expect to carry every State in the Union. I shall not slander the inhabitants of the fair State of Massachusetts nor the inhabitants of the State of New York by saying that, when they are confronted with the proposition, they will declare that this nation is not able to attend to its own business. It is the issue of 1776 over again. Our ancestors, when but three millions in number, had the courage to declare their political independence of every other nation; shall we, their descendants, when we have grown to seventy millions, declare that we are less independent than our forefathers? No, my friends, that will never be the verdict of our people. Therefore, we care not upon what lines the battle is fought. If they say bimetallism is good, but that we cannot have it until other nations help us, we reply that, instead of having a gold standard because England has, we will restore bimetallism, and then let England have bimetallism because the United States has it. If they dare to come out in the open field and defend the gold standard as a good thing, we will fight them to the uttermost. Having behind us the producing masses of this nation and the world, supported by the commercial interests, the laboring interests, and the toilers everywhere, we will answer their demand for a gold standard by saying to them: You shall not press down upon the brow of labor this crown of thorns, you shall not crucify mankind upon a cross of gold.

138. DISTRIBUTION OF VOTE IN 1896[1]

BY CHARLES J. BULLOCK

The first group includes the eleven states of the greater average density of population, and it will be seen that all of these were carried by the gold party, usually by an emphatic majority:

States	Average Density	Percentage of Gold Vote
Rhode Island	318.44	71.9
Massachusetts	278.48	72.9
New Jersey	193.82	62.3
Connecticut	154.03	66.4
New York	126.06	59.5
Pennsylvania	116.88	62.9
Maryland	105.72	56.9
Ohio	90.10	52.3
Delaware	85.97	56.8
Illinois	68.33	56.8
Indiana	61.05	51.3

The second group includes eighteen states of a medium density of population, and these show a fairly even division of sentiment, eight casting a majority vote in favor of the gold standard, and ten showing a majority in favor of silver or paper:

States	Average Density	Percentage of Gold Vote
Kentucky	46.47	50.5
Tennessee	42.34	47.5
New Hampshire	41.81	73.5
Virginia	41.27	47.0
Missouri	38.98	45.7
South Carolina	38.16	14.6
Michigan	36.46	55.6
Vermont	36.39	83.1
Iowa	34.47	56.6
North Carolina	33.30	47.1
Georgia	31.15	39.9
Wisconsin	31.10	61.9
West Virginia	30.95	53.0
Alabama	29.36	31.9
Mississippi	27.83	8.8
Louisiana	24.63	23.6
Maine	22.11	70.3
Arkansas	21.27	25.2

[1] Adapted from *The Monetary History of the United States*, pp. 117–19. (The Macmillan Co., 1900.)

The third group comprises sixteen states with the least density of population, and it will be noticed that only four of these cast a majority vote in favor of the gold standard:

States	Average Density	Percentage of Gold Vote
Kansas	17.48	48.2
Minnesota	16.54	58.3
Nebraska	13.83	47.3
Texas	8.52	31.7
California	7.78	52.1
Florida	7.22	26.7
Washington	5.34	44.0
South Dakota	4.54	49.8
Colorado	3.99	13.9
Oregon	3.36	51.6
North Dakota	2.72	56.0
Utah	2.56	17.3
Idaho	1.05	21.4
Montana	0.98	19.7
Wyoming	0.64	48.5
Nevada	0.43	18.7

139. THE ACT OF 1900 AND THE GREENBACK CURRENCY[1]

By F. W. TAUSSIG

The Act of March 13, 1900, "to define and fix the standard of value, to maintain the parity of all forms of money issued or coined by the United States, and for other purposes," opens a new stage in the monetary history of the United States.

The first section provides that the gold dollar shall be "the standard unit of value," and makes it the duty of the Secretary of the Treasury to maintain all forms of money "at a parity" with this standard. This, to be sure, is no more than a declaration, whose efficacy depends on the nature of the legislation provided for upholding the standard. Much more important, as a legislative command framed in precise terms, is the provision with which the second section opens: that United States notes and Treasury notes, when presented for redemption, shall be redeemed in gold. Under the terms of previous legislation the Secretary of the Treasury had the right to redeem at his discretion, in either kind of coin. Hereafter no Secretary will have discretion on this point. The legal-tender paper is redeemable in gold and in gold only.

[1] Adapted from "The Currency Act of 1900," *Quarterly Journal of Economics*, XIV (1899–1900), pp. 394–410.

By section 4 there are established in the office of the Treasurer two divisions, to be known as the division of issue and the division of redemption; and to these are transferred "all records and accounts relating to the issue and redemption of United States notes, gold certificates, silver certificates, and currency certificates." So much is merely a bookkeeping change, serving to set forth more clearly the various resources and obligations of the Treasury. But it is further provided that among these accounts shall figure the "reserve fund" for the redemption of the legal-tender paper, which, like the other funds represented in the several accounts, is to be "held as a trust fund." That reserve fund is created and specifically defined in section 2, where the declaration of trust again appears in the provision that the fund "shall be used for such redemption purposes only." The Secretary of the Treasury is to constitute it by setting aside 150 millions of gold coin and bullion, not, indeed, setting it aside physically, but charging so much of the gold he has on hand to the reserve fund. Here we have something like an issue department. We might expect that thereafter the situation would be simple, the new department, or account, serving to hold fast any notes redeemed, and reissuing them, if at all, only against a later redeposit of gold. But this simple and straightforward mechanism is not adopted. Instead, we have a series of elaborate regulations, which once again interlace the new account with the other Treasury operations. The further provisions of this section of the act (section 2) call for constant transfers to and fro between the new reserve fund and the general fund, anxiously avoid any accumulation or putting aside of redeemed notes, virtually compel their reinjection into the currency, and, finally, look to real replenishment of the gold supply from the sale of bonds only as a last and extreme resort.

There are two chief means of restoring the reserve whenever notes are redeemed: (1) The Secretary must exchange the notes for any gold coin in the "general fund." This general fund is simply the cash which happens to be on hand in the course of the Treasury's ordinary fiscal operations. If the cash is in excess of the current needs, and if the surplus on hand exists in the form of gold coin (as at the present juncture it happens to be), a resource for strengthening the reserve fund is here available. But the resort to this device clearly causes the surplus in the general fund to take the form of notes rather than gold; and, since a permanent and continuing surplus is more than improbable, we may be sure that sooner or later the transferred notes

will be paid out. Under what we may suppose to be normal conditions, when revenues simply balance expenditures, the operation must cause the redeemed notes to be returned to circulation with but a short interval of temporary housing in the general fund. (2) The second use which the Secretary of the Treasury must make of redeemed notes even more obviously and unfailingly returns them to circulation: "by accepting deposits of gold coin at the Treasury or at any subtreasury in exchange for the notes so redeemed." Such deposits have been habitually made for years, where paper is desired for convenience of use by persons having gold on their hands; and a continuance of this practice is looked to as a means of replenishing the reserve fund.

These devices described in the preceding paragraphs are compulsory on the Secretary of the Treasury until 50 millions of the original 150 millions of gold are gone from the reserve fund. So long as gold can be scraped up elsewhere, by transfer from the general fund or by exchange with the outside world, the redeemed notes are to be held in the reserve fund only for a moment. When these devices are no longer available, the notes begin to be impounded. The reserve fund may never exceed 150 millions in all, and, as will be pointed out in a moment, the notes in it may not exceed 50 millions; but within these limits it may consist partly of gold and partly of redeemed notes.

The stage of energetic replenishment of the reserve fund is not reached until the gold in it shall fall below 100 millions. The Secretary of the Treasury must sell bonds, and thereby procure gold. But the gold thus got is not to be turned automatically into the reserve fund. It "shall first be covered into the general fund of the Treasury, and then exchanged for an equal amount of notes redeemed." The effect of this requirement must be to cause the reserve fund, which previously would have consisted of 100 millions of gold and 50 millions of paper, to be suddenly made up again of 150 millions of gold, the paper being transferred as suddenly to the general fund, and there held again as cash. Thereafter these notes may be used in exchange for gold (once more!) or to purchase bonds or "for any lawful purpose." The only restriction is that "they shall not be used to meet deficiencies in the current revenues." This proviso is expected to prevent the reappearance of the "endless chain." So long as there is a "deficiency in the current revenues," any notes transferred from the reserve fund into the general fund in exchange for bond-bought gold are to be impounded in the general fund, and there held as "cash in the Treasury."

Surveying the new Treasury system, as a whole, we need not hesitate to admit that, so long as this legislation stands, it is strong enough, assuring, even though by a cumbrous machinery, the maintenance of the gold standard. Much, indeed, is left to the discretion of the Secretary of the Treasury. Contingencies may be imagined, however, in which the elaborate mechanism would be put to severe trial, and the government and the business community involved in difficulties calling for the highest qualities in that responsible post.

Standing conspicuously at the head of the Treasury's statement of condition is the "reserve fund" of gold coin and bullion to the amount of 150 millions. Such conspicuous amassing of a great hoard of cash, likely to appear year after year, of no apparent utility; the difficulty of establishing with the general public and among the ever-shifting legislators the traditions of an inviolable fund; the constant transfers from reserve fund to general fund and vice versa, still further obscuring the principle of an independent and automatic reserve; the habit of looking to the government for relief, engendered by the system of an independent treasury; the certainty of a perennial crop of agitators and legislators who will urge a plentiful outpouring of money as the one remedy in times of depression; the constant resort to compromise in settling disputed questions, inevitable under congressional and parliamentary government and conspicuously illustrated by the history of currency legislation for the last thirty-five years: these are undeniable menaces to the permanent maintenance of the new system. It lacks above all things the simplicity and single-mindedness necessary for the planting of a tradition, for the settlement of a principle. What its future may be remains to be seen. In fair weather, it will go its way easily enough; but how will it withstand the shocks of storm?

140. THE ACT OF 1900 AND TREASURY NOTE RETIREMENT[1]

By J. LAURENCE LAUGHLIN

Under the act of July 14, 1890, 168,674,682.53 ounces of fine silver were bought by the issue of $155,931,002.25 of treasury notes. The average price paid per ounce for the bullion was $0.9244; and as the price is now about one-third less, the value behind the notes has become one-third less. But if this bullion were coined into silver dollars (at the rate of 371¼ grains each), the 168,674,682.53 fine

[1] Adapted from "Recent Monetary Legislation," *Sound Currency*, VII (1900), 110–11.

ounces would yield about 218 million silver dollars. Then, instead of $155,931,002.25 treasury notes to look after, there would have been a vastly larger bulk of silver dollars to be added to those already coined under the act of 1878. The act of July 14, 1890, itself provided for an eventual extinction of the treasury notes, by virtue of the following provision: "No greater or less amount of such notes shall be outstanding at any time than the cost of the silver bullion and the standard silver dollars coined therefrom, then held in the treasury purchased by such notes."

Hence treasury notes, when redeemed by gold, would be reissued in order to keep the amount equal to the bullion plus the silver dollars held; but when redeemed by silver, the treasury notes would be canceled in order to keep the amount outstanding no greater nor less than the bullion plus the diminished number of silver dollars held. The released silver dollars, if returned in any way to the treasury, could then become the basis of additional silver certificates (but never of treasury notes). This explains why the treasury notes were gradually reduced in volume, coincident with an increase of silver dollars and silver certificates.

The act of June 13, 1898 (the Spanish War Loan and Revenue Act), stimulated this process by the following requirement (sec. 34): "That the Secretary of the Treasury is hereby authorized and directed to coin into standard silver dollars as rapidly as the public interests may require, to an amount, however, of not less than one and one-half millions of dollars in each month, all of the silver bullion now in the treasury purchased in accordance with the provision of the act approved July 14, 1890 . . . . and said dollars, when so coined shall be used and applied in the manner and for the purposes named in said act."

Then the act of March 14, 1900, specified that as fast as silver dollars were coined under the foregoing laws, the Secretary should (sec. 5): "Retire and cancel an equal amount of treasury notes whenever received into the treasury, either by exchange in accordance with the provisions of this act or in the ordinary course of business, and upon the cancellation of treasury notes silver certificates shall be issued against the silver dollars so coined."

In this way the new law has brought about the cancellation of treasury notes without waiting for the former process of redemption by silver, thus hastening the conversion of treasury notes into silver certificates. The only advantage to be gained from this action is the

final disappearance of one of the too many kinds of money which make up our circulation.

When the new law came into force there were only $66,776,000 treasury notes outstanding, supported by bullion costing $77,402,692, plus 9,373,308 silver dollars. The number of ounces of fine silver uncoined at that date was about 85,550,000. Consequently, instead of 155 million dollars in treasury notes, we shall have about 200 millions in silver dollars when conversion has been completed, or an increase of not less than 45 million dollars. This increased volume of silver dollars will raise the total issue (including the 378 million dollars coined under the act of 1878) to about 578 million dollars. For the maintenance of this vast sum at parity with gold, when each silver dollar is actually worth only about 47 cents, there is absolutely no method of direct redemption in gold. And the act of March 14, 1900, gives no new provisions whatever to accomplish this end, or to support its windy and virtuous order to the Secretary to maintain the parity. Congress might as well have ordered the Secretary to see that every citizen of the United States should have blue eyes, so far as any new power was given him to carry out the purpose.

141. PARTY STATEMENTS IN 1896 AND 1912

DEMOCRATIC PLATFORM, 1896

"We declare that the Act of 1873, demonetizing silver without the knowledge or approval of the American people, has resulted in the appreciation of gold and a corresponding fall in the prices of commodities produced by the people."

DEMOCRATIC PLATFORM, 1912

"The high cost of living is a serious problem in every American home. We charge that excessive prices result in a large measure from the high tariff laws enacted and maintained by the Republican party and from trusts and commercial conspiracies fostered and encouraged by such laws, and we assert that no substantial relief can be secured for the people until import duties on the necessaries of life are materially reduced and these criminal conspiracies broken up."

It was denied in the campaign that the rising prices could be due to any other cause, such as the fall in the value of gold.

REPUBLICAN PLATFORM, 1896

"The full and unrestricted Democratic control of the government . . . . has been a record of unparalleled incapacity, dishonor, and

disaster. In administrative management, it has ruthlessly sacrificed indispensable revenue, entailed an increasing deficit . . . . piled up the public debt by $262,000,000 in time of peace. In the broad effect of its policy it has precipitated panic, blighted industry and trade with prolonged depression, closed factories, reduced work and wages, halted enterprise, and crippled American production."

The assertion was repeatedly made in the campaign that there was an adequate quantity of money and that low prices were not the result of gold appreciation; that, in fact, there is little relation between money and prices.

REPUBLICAN PLATFORM, 1912

"The steadily increasing cost of living has become a matter not only of national but world-wide concern. The fact that it is not due to the protective tariff system is evidenced by the similar conditions in countries which have a tariff policy different from our own, as well as by the fact that the cost of living has increased while rates of duty have remained stationary. The Republican party will support a prompt scientific inquiry into the causes which are operative both in the United States and elsewhere to increase the cost of living."

It was repeatedly stated during the campaign that this world-wide phenomenon of rising prices was undoubtedly due to the fall in the value of gold in consequence of the great increase in gold production.

142. THE FUTURE OF GOLD PRODUCTION[1]

The great increase in the output of gold since 1890 has been due in the main to two contributing discoveries that were directly related to each other, namely, the discovery of the Transvaal field and the discovery of the cyanide process.

The discovery of the cyanide process must be regarded as one of the greatest achievements of modern times. And there can be no doubt that cyaniding will be hailed by coming generations for its importance, not so much to the mineral industries directly, as for its bearing upon world-economies in rendering possible a greatly increased output of gold and silver year after year. In the comparatively brief twenty-year interval since 1891, when Messrs. McArthur and Forrest brought the modern perfected cyanide process prominently before the mining world, the output of gold has amounted to 284,081,289 fine

[1] Adapted from the *Annual Report of Director of the Mint*, 1911, pp. 46, 66–67; 1914, pp. 261–62.

ounces. This is a most astonishing showing, especially when compared with a total output of 401,311,148 fine ounces for the entire 397 years previous—from 1493 to 1890. Nor, if we except the Klondike, has this record production been boomed by the development of new fields. The cream of the world's gold fields had already been skimmed in previous years in California, Australia, South Africa, Siberia, India, and elsewhere. It is mainly on the cast-off leavings of the old fields that the cyanide process has achieved a record production of the yellow metal. And among those leavings we must not forget the innumerable lower-grade properties whose exploitation has been rendered fundamentally possible only by the cyanide process. It is these latter which now furnish the bulk of the world's supply of gold, and upon which the world must depend very largely for its future requirements.

Of course, it is possible that at any time new deposits equally rich with those of the Transvaal and the Klondike may be laid bare; and it is conceivable that the cyanide process may be superseded by a method which would again revolutionize production. But until such new discoveries are made there can be no leap in production comparable to that of the past twenty years.

Since 1906 the rate of production in the United States, including Alaska, has been practically at a standstill. There is nothing to indicate a considerable change in either direction. Australasia has been on a declining scale since 1903, the annual yield being now about $28,000,000 below the high year. Russia, Canada, and Mexico have shown an increase of late about sufficient to offset Australasia.

Investigation has recently been made into the question of the life of the Rand as a gold field. That there is an immense amount of payable ore in sight, and that very low-grade and at present unpayable ore exists by hundreds of millions of tons, is beyond dispute. But as a paying proposition in the aggregate how long the Rand will last is the subject that has been engaging attention. The Engineers' Committee of the Transvaal Chamber of Mines has recently arrived at conclusions which are regarded as rather unpalatable. The ore-bearing formations show considerable fluctuations, and working costs appear to be increasing as the mines deepen. But it is impossible to make a definite forecast, especially as in the eastern section of the Rand recent developments lead to an increase of the estimates of ore reserves. Beyond the proved claims, which are yielding fair to good

results, it is estimated that there are 1,720,000,000 tons of ore in that section. The whole matter resolves itself into a question of working costs, but under any circumstances the Transvaal production will continue to be on an enormous scale for many years to come.

The *South African Mining Journal* in a recent issue refers to the great varieties of estimates as to the life of the Rand which have been made in recent years. In conclusion, the article observes: "To summarize all these prophecies, and without quoting a number of other forecasts, we arrive at the following: 1901—Mr. Hammond says the Rand will last until 1926. 1902—Dr. Hatch and Mr. Leggett say until 1944. 1904—The *Loan* estimates that authorities say until 1934. 1911—Dr. Hatch indicates a life until 1950, and in the same year Mr. Hull prolongs the period by about 15 years. Mr. Boustred then put the date of exhaustion at A.D. two thousand and something. Next the Chamber of Mines gives evidence, which is interpreted in some quarters as meaning that the Rand will be of a very minor importance after 1940, and Mr. Mathers informs the world that the Rand will be productive until 2008. We do not propose to analyze these various prophecies—such action would be as futile as the prophecies themselves. It is now admitted that Mr. Hammond's 1901 estimate was based on false premises. The former chief consulting engineer of the gold fields did not reckon on working costs being reduced to the extent they have been. We firmly believe that long before the date of exhaustion determined by other authorities has been reached it will be generally admitted that these other authorities also did not base their estimates on correct assumptions. Who at this date will make so bold as to say what changes in the economic aspects of the industry may not be effected before the end of the present decade? And since every little improvement, every little reduction in working costs, must have a hugely important influence on millions of tons of ore, who can limit or determine the productive era of the Witwatersrand? In any case, the death of the Rand is not going to be a sudden affair. The decline will be very gradual and protracted."

VII

THE STANDARD QUESTION: THE CONTROL OF PRICE LEVELS

Introduction

In this chapter we are concerned only with the standard of deferred payments.[1] It has been noted that this function of money was of later origin than the others, being necessarily delayed until the development of contractual relations and the institution of credit had given rise to time obligations. Consequently, in the early periods of monetary history the question of deferred payments was of minor importance. Today, however, it is the paramount issue in monetary discussion. The standard, gold, no longer serves extensively as a medium of exchange, and as a common denominator of value for a given moment of time it gives rise to no real problems. It is, practically speaking, only as a standard of deferred payments that we have at the present time a monetary problem at all, so far as gold is concerned.

It has been noted in chapter i that an ideal standard of deferred payments should be absolutely invariable, like a yardstick, and that in practice we should choose for such standard a commodity as nearly stable in value as possible. The evils of a fluctuating standard of deferred payments manifest themselves through changing price levels. Obligations payable in money that are entered into at one price level may be payable at a future date when the level of prices may be substantially lower or substantially higher. If lower, the borrower finds that he has to repay a greater purchasing power than he received, or, what is more to the point, he finds it more difficult in consequence of lower prices (and wages) to repay his loan than would have been the case at the former level of prices. If prices have risen, the lender does not receive back a purchasing power equivalent to that given at the time of the loan.

While the greenback and silver movements in the United States found their popular support partly, perhaps mainly, in the desire for a larger supply of money, they also involved, as has been noted, the injustice to debtors caused by an appreciating standard of deferred

[1] See discussion of standards, pp. 96–97.

payments. At the present time the situation is reversed, the agitation over the high cost of living being a result of the losses suffered by creditors—owners of bonds and other long-time investments—in consequence of rising prices; though accompanying this, of course, is the inequity that results from the failure of salaries and wages to advance with like rapidity. Former eras of high prices have also given rise to discussion of the question of deferred payments though perhaps in a less definite way so far as the general public has been concerned. The public attitude toward the control of prices, however, is shown in the various historical attempts in almost every country to fix the prices of staple products and to punish violations of the law by fines, imprisonment, and even death.

Students of money have long given the control of price levels their close attention, and numerous devices have been suggested for procuring a stable standard of deferred payments. The first phase of the discussion centered around the choice of such a standard—whether it should be the precious metals or some other commodity, such as wheat (corn), or whether labor might not serve as the measure of future payments. In the second place, the argument for bimetallism, at least on the "scientific," as distinguished from the popular, side, was mainly that it would give us a less variable standard for deferred payments. A third device was that of the tabular standard, first proposed by Mr. Jevons in the seventies[1] after a long period of rising prices, and discussed by economists more or less continuously ever since. Finally, we have a variation of the tabular method of control known as the compensated dollar. First suggested by Williams in 1892, it has again been independently advanced with much refinement and elaboration of detail by Professor Irving Fisher. The plan has been the subject of much discussion and has had a wide though not universal indorsement by economists.

143. THE NATURE AND PURPOSE OF THE MULTIPLE STANDARD[2]

BY DAVID KINLEY

The unit of measure under the tabular standard is the aggregate price at a given time of a long list of articles, a definite quantity and quality of each being chosen, just as is done in making a table of index

[1] Jevons gives credit for suggestions along this line to some English writers as early as 1830.

[2] Adapted from *Money*, pp. 276–77. (The Macmillan Co., 1904.)

numbers. A table of the prices of these articles is made when the debt is created, and again when it is to be paid. If we call the sum of the prices of the articles at the creation of the debt 100, then the amount of money to be paid is to the amount borrowed as the sum of the prices at the time of payment is to 100. That is, the debt is really regarded as consisting of as many units of the tabular standard as the money loaned would buy at the time the debt was incurred. The amount of money which will buy these units when the debt is due is what the debtor pays. For example: If, on the first of January, A borrows $1,000 payable in one year, he finds the number of units of the tabular standard which $1,000 will buy on January first. Suppose this number is ten. He then gives his creditor a note for ten units of the tabular standard, and on the first of the following January reference is made to the price list then existing, to determine how much money the units of the tabular standard will then command. He may find that $990 will buy the same quantity of the goods used in making up the table as $1,000 would buy the year before. In that case the debt is settled by the payment of $990.

Of course it would be necessary to have some means of insuring the accuracy of the prices quoted in making up the tabular standard. This would be done by creating an official commission, whose duty it would be to publish at stated periods, say weekly or monthly, changes which have taken place in the prices of commodities entering into the table. With these prices in hand, it would be an easy matter for an individual to find out what his debt was worth in money at any date. If the tables included all articles sold at the time, in the proportion in which they are offered for sale, and if the amount of each article in the table were scaled down so that the price of the whole should become that of a unit of money, the tabular unit would become what we have called the composite commodity unit. The aim of the tabular standard of deferred payments is, therefore, to return at the time of payment as many such composite commodity units as the money borrowed enabled the borrower to secure at the time the loan was made. The debtor, by this method, would return the same income in goods as he received.

144. INDEX NUMBERS AND LEADING PRICE TABLES[1]

An index number or relative price of any given article at any given date is the percentage which the price of that article at that date is of the price of the same article at a date or period which has

[1] *Bulletin of the United States Bureau of Labor Statistics*, VII (1902), 195–214.

been selected as a base or standard. This base or standard varies in the different series of index numbers which have been presented to the public. In the *London Economist's* index numbers the average price for the years 1845 to 1850, inclusive, is taken as the base; in those calculated by Mr. Sauerbeck the average for the eleven years, 1867 to 1877, is taken; in Soetbeer's index numbers the average for the four years, 1847 to 1850, is used, while in the United States Senate Finance Committee's statement of relative prices the price for the year 1860 is taken as the base or standard. In order to secure the index number or relative price for any article at any date in the period covered, the price of the article for that date is divided by the price at the date, or by the average price for the period selected as the base. The quotient obtained shows what percentage the price at the given date is of the base or standard price and is called the index number or relative price. For example, the percentage for flour in 1885 in Mr. Sauerbeck's series of index numbers is 63, meaning that the average price of flour in 1885 was 63 per cent of the average price of the same article during the base period (1867–77). This base being always 100, a fall of 37 per cent is indicated.

These percentages having been made in the case of each separate article included in the particular scheme under consideration, and for each year of the period covered, a series of total index numbers or relative prices for each of the years covered is usually constructed by adding together the index numbers of all the articles for each year and dividing the result by the number of articles considered, thus securing an average of the same.

One of the best known price tables is that of the *London Economist*, which has been published annually since 1863. It is based on the price quotations of twenty-two commodities, as follows: coffee, sugar, tea, tobacco, wheat, butcher's meat, raw cotton, raw silk, flax and hemp, sheep's wool, indigo, oils, timber, tallow, leather, copper, iron, lead, tin, cotton wool, cotton yarn, cotton cloth. The prices used are wholesale quotations, mainly from firms engaged in trade in the London and Manchester markets.

The most widely known series of European index numbers, aside from those of the *London Economist* and Mr. Sauerbeck, is that of Dr. Adolph Soetbeer. These index numbers were first published in 1886 and were based on the prices of the Bureau of Commercial Statistics of Hamburg. To the prices secured from this source Dr. Soetbeer added those of several articles, such as potatoes, meat, etc.,

which were obtained from the records of hospitals and other institutions in Hamburg. There were also considered the prices of 14 manufactured articles of British export. In all, 114 articles are included in these index numbers. The table runs from 1851 to 1885, with a continuation to include 1891 by Mr. Heinz.

Perhaps the largest collection of prices which has ever been made under a uniform system, with the exception of the Bureau of Labor's table, is that of the United States Senate Finance Committee, commonly known as the Aldrich Table. It covers the years from 1840 to 1891. The prices used were wholesale prices, and in most instances were taken directly from the books of merchants and manufacturers. The exceptions were those obtained from trade journals, large buyers, etc. The base or standard was the price for the year 1860.

The index number of the United States Department of Labor represents the course of wholesale prices since 1890. Two hundred and sixty-one series of quotations serve as the basis of the index number, the commodities covered being classified under nine general groups, as follows:

Farm products, 16 series of quotations.
Food, etc., 54 series of quotations.
Cloths and clothing, 76 series of quotations.
Fuel and lighting, 13 series of quotations.
Metals and implements, 39 series of quotations.
Lumber and building materials, 27 series of quotations.
Drugs and chemicals, 9 series of quotations.
House-furnishing goods, 14 series of quotations.
Miscellaneous, 13 series of quotations.

The prices quoted in every instance are wholesale prices. Wholesale prices have invariably been used in compilations which have been made for the purpose of showing changes in the general price level. They are more sensitive than retail prices and more quickly reflect changes in conditions. Retail prices must usually follow the wholesale, but not generally in the same proportion. The margin between them in the case of some commodities is so great that slight changes in the wholesale price do not affect the retail. Changes in the wholesale price, also, which last for a short time only do not usually result in corresponding changes in the retail price.

These prices are collected from the best available sources, such as standard trade journals, produce exchanges, and leading manu-

facturers, or their selling agents, reports of boards of trade and chambers of commerce. The prices quoted are usually the prices in the New York market, except for such articles as have their primary market in some other locality.

145. THE FALLACY OF INDEX NUMBERS[1]

By HAROLD COX

What does the evidence as to price changes that is alleged to be furnished by index numbers amount to? Here, for example, are two pairs of figures taken from a table given by Mr. Layton in his little book on the *Study of Prices*. Between 1891 and 1910 the Sauerbeck index number for food prices *fell* from 77 to 74; between the same two years the index number for raw material *rose* from 68 to 81. Do the advocates of the quantity theory expect the world to believe that the increased output of gold simultaneously sent down food prices and sent up the prices of raw materials?

Let us look at the matter a little more closely. Mr. Sauerbeck's numbers, and also those published by the *Economist*, are obtained by averaging a number of separate prices of different commodities. But such an average is nothing more than an arithmetic expression. For example, the weekly price lists published in the *Economist* show that between August 26, 1911, and September 7, 1912, copper rose from £59 10*s*. to £83; linseed oil fell from £42 5*s*. to £33 15*s*.; beef rose from 4*s*. to 4*s*. 10*d*.; butter fell from 139*s*. to 126*s*.; bacon was stationary. Is it seriously contended that by averaging these variations we can determine whether gold has appreciated or depreciated? To show the absurdity of such a proposition it is sufficient to point out that the average would be altered if the price of one article in the list changed considerably through causes admittedly peculiar to that article. With all respect to the eminent statisticians who work out these index numbers, it is no more possible to deduce any practical inference from such averages than it is to infer the actual depth of a river at any given point from the statement that the average depth is three feet. The fallacy of averages is one that seems ever to haunt the human mind.

[1] Adapted from "Politics and Prices," *Edinburgh Review*, October, 1912, pp. 482–83.

146. A CRITICISM OF USUAL INDEX NUMBERS AND PRICE TABLES[1]

BY WESLEY C. MITCHELL

I

Making an index number involves several distinct operations: (1) defining the purpose for which the final results are to be used; (2) deciding the numbers and kinds of commodities to be included; (3) determining whether these commodities shall all be treated alike or whether they shall be weighted according to their relative importance; (4) collecting the actual prices of the commodities chosen and, in case a weighted series is to be made, collecting also data regarding their relative importance; (5) deciding whether to measure the average variations of prices or a variation of a sum of actual prices; (6) in case average variations are to be measured, choosing the base upon which relative prices shall be computed; and (7) settling upon the form of average to be struck.

The first step, framing a clear idea of the ultimate use to which the index number is to be devoted, is most important, since it affords the clue to guide the compiler through the labyrinth of subsequent choices. It is, however, the step most frequently omitted. Most of the widely used index numbers are "general purpose" series, designed with no aim more definite than that of measuring changes in the price level. Once published they are used for many ends—to show the depreciation of gold, the rise in the cost of living, the alternations of business prosperity and depression, and the allowance to be made for changed prices in comparing estimates of national wealth or private income at different times. They are cited to prove that wages ought to be advanced or kept stable; that railway rates ought to be raised or lowered; that "trusts" have manipulated the prices of their products to the benefit or the injury of the public; that tariff changes have helped or harmed producers or consumers; that immigration ought to be encouraged or restricted; that the monetary system ought to be reformed; that natural resources are being depleted or that the national dividend is growing. They are called in to explain why bonds have fallen in price and why interest rates have risen, why public expenditures have increased, why social unrest prevails in certain years, why farmers are prosperous or the reverse,

[1] Adapted from *Bulletin of the United States Bureau of Labor Statistics*, 1915, Whole Number 173, pp. 25–26.

why unemployment fluctuates, why gold is being imported or exported, and why political "landslides" come when they do.

The compiler of a general-purpose index number, then, cannot foresee to what uses and misuses his figures will be put. For each of the legitimate uses he might conceivably devise an appropriate series. But he cannot conceivably devise a single series that will serve all uses equally well. The very qualities that make an index number good for one purpose may make it equally bad for other purposes.

II

The price tables in use at the present time are also defective in other ways.[1] Out of the thousands of commodities bought and sold, the most extensive tables quote less than three hundred. The selection depends less on the information which is desired than on the information which happens to be available. Goods which change substantially in quality from year to year must be rejected, and for goods which are usually the subject of private bargains it is difficult to secure quotations. For the most part, only those commodities are included which are dealt in on public exchanges and those for which dealers post their buying and selling prices. Hence it happens that the various parts of the system of prices are most unevenly covered. Relatively abundant quotations can be had for the staple raw materials, while the data concerning manufactured goods, whether used by producers or consumers, are relatively scanty. Moreover, the market reports and list prices given to the public cannot always be trusted, because many transactions are made on the basis of concessions from or additions to the standard rates. Particularly in times of crises, when the markets become "demoralized," and in times of intense activity, when premiums are paid for quick deliveries, the published table probably understates the real fall and rise of prices. Finally a considerable part of the business transacted at any given time is done on a basis of prices fixed by earlier contracts, and these contract prices often differ from the current quotations. With all its defects, however, the available material can be made to yield much information under systematic examination.

The best known American, English, French, and German series differ widely in the number and character of the commodities included and in the basis of computation, and hence in the results shown.

[1] Adapted from *Business Cycles*, pp. 93–113. (University of California, 1913.)

There is always a grave question as to how far they may be regarded as trustworthy representatives of the average price variations in the several countries; and for comparative purposes they leave the gate open for quite erroneous conclusions.

147. CRITICISM OF THE MULTIPLE STANDARD[1]

By J. LAURENCE LAUGHLIN

When prices fall because of changes in the arts and in the productive efficiency of society, the multiple standard does not subserve perfect justice. The practical question is, Who is entitled to the gains of industrial society? If the capital of $1,000 which A owned in 1880 purchased x goods, and gave forth a certain industrial result in the then state of the arts; and if that capital while in the hands of B, the borrower, due solely to the general progress of the arts for which neither A nor B is directly the cause, gave forth in 1900 a greater industrial result (such as more tons of coal or more yards of cotton cloth), does that additional product, n goods, belong of right to A or to B? Should the result of the efficiency of society go to the creditor or to the debtor? The question is similar to that of deciding to whom should go the increased value of land arising from the growing numbers of the community—to the landowner or to the tenant. The triumphs of chemistry and physics, the marvels of invention and machinery, become the general property of the industrial world, and any one debtor or any one creditor can claim no general property in these results. Therefore neither A nor B has any moral right to the additional n goods which have issued from the greater efficiency of labor and capital under the improved conditions of 1900.

The multiple standard, however, by its very nature assumes that perfect justice is rendered through the return by the debtor to the creditor of only x goods; that is, the multiple standard works to give the n goods (due to the progress of the arts) to the debtor and to take them away from the creditor. And yet it has been seen that the debtor has no moral right to this excess of goods. The conclusion, if the above reasoning be accepted, is inevitable, that the multiple standard in a case of falling prices due to the progress of society does not subserve perfect justice; if it is to be rejected, it must be on this ground, and not on that of impracticability.

[1] Adapted from *Principles of Money*, pp. 54–55. (Charles Scribner's Sons, 1903.)

148. PRACTICAL OBJECTIONS TO THE TABULAR STANDARD[1]

BY IRVING FISHER

On the whole, the "tabular standard" seems to have real merit. Certainly there could be no material harm in trying a "permissive" law, that is, one that enables anyone who chooses to make a time contract in terms of a tabular standard. But on practical grounds the tabular standard is subject to serious if not fatal objections. One is the fact that it would involve the trouble of translating money into the tabular standard and would therefore fail to attract the public sufficiently to warrant its complete adoption by any government. Another objection is that its half-way adoption would really aggravate many of the evils it sought to correct, and therefore discourage, rather than encourage, its further extension. Even were the system adopted in its complete form for any one country, it would have the disadvantage of isolating that country commercially, and thus reintroduce the inconveniences of an uncertain rate of international exchange. An analogous inconvenience would arise by its partial adoption in any one country. Business men naturally and properly prefer a uniform system of accounts to two systems warring with each other. They would complain of such a double system of accounts in exactly the same way and on exactly the same grounds as they have always complained of the double system of accounts involved in international trade between gold and silver countries. A business man's profits constitute a narrow margin between receipts and expenses. If receipts and expenses could both be reckoned in the tabular standard, his profits would be more stable than if both were reckoned in money. But if he should pay some of his expenses, such as interest and wages, on a tabular basis, his profits would fluctuate far more than if both sides, or all items of the accounts, were in gold. In fact, his expected profits would often turn into losses by a slight deviation between the two standards, in precisely the same way as the importer or exporter of goods between China and the United States may have his profits wiped out by a slight variation in the exchange. In either case, he would prefer to have the same standard on both sides of the account, even if this standard fluctuated, rather than have two standards, only one of which fluctuated; for

[1] Adapted from the *Purchasing Power of Money*, pp. 335–37. (The Macmillan Co., 1911.)

his profits depend more on the parallelism between the two sides of his account than on the stability of either.

149. THE COMPENSATED DOLLAR[1]

BY IRVING FISHER

The following plan, which may be called "the adjustable seigniorage plan," is an attempt to make the purchasing power of the dollar constant. We have at present a gold dollar of constant weight, but of varying purchasing power. We need a dollar of constant purchasing power and varying weight.

The present proposal is to increase and vary, from time to time, the weight of the bullion dollar, without necessarily disturbing the weight of the coined dollar. Suppose, for instance, that the bullion dollar had been gradually increased since 1896 until today it were 50 per cent heavier, or 38.7 grains, while the coined dollar were still 25.8 grains. This means that the government would redeem on demand each coined dollar in 38.7 grains of gold bullion. Gold dollars would then be mere tokens, like brass checks, entitling the holder to gold bullion just as our gold certificates now entitle the holder to so much gold (coin or bullion) in the United States Treasury. As to convertibility in the other direction, the government mint would stand ready to give back a coined dollar for each 38.7 grains of bullion plus a slight coinage fee or "brassage" of, say, 1 per cent. This brassage charge would serve, as afterward explained, to prevent loss to the government by speculation. If 1 per cent, it would be 0.387 grains, to be added to the 38.7, making 39.087 grains in all as the bullion required at the mint to secure a "coined dollar."

The difference between the bullion required by the mint (39.087 grains) and the coin dollar (25.8 grains) is 13.287 grains and would be retained by the government to strengthen its bullion reserve for redeeming gold coin. Of this 13.287 only 0.387 is brassage; the remainder, 12.9 grains, may for distinction of terms be called seignorage. Thus in weight the bullion dollar is the coin dollar plus seignorage, and the bullion dollar required by the mint is the amount of this bullion dollar plus "brassage."

An obvious proviso in the proposed plan would be that the bullion dollar must never be lighter than the coin dollar. The present indi-

[1] From various writings of Irving Fisher as adapted by Marshall, Wright, and Field in *Materials for the Study of Elementary Economics*. The University of Chicago Press.

cations are that the dollar, in order to maintain the same purchasing power, will need in general to increase, for further depreciation of gold seems probable. If, however, it should even happen that the proposed bullion dollar should shrink in weight again to 25.8 grains, then the proviso that it should never shrink lower would come into operation. It would then have to remain 25.8 until the weight required for the bullion dollar should again rise above 25.8 grains. So long as it remained 25.8 grains it would cease to be adjustable and to maintain a constant purchasing power. We should during this period simply be in the same condition that we are in at present.

With a coin dollar weighing 25.8 grains and with the bullion dollar never lighter than 25.8 grains, the price of gold bullion can never be higher than $18.60. But this limit or barrier can at any time be made to recede simply by reducing the weight of the coin dollar through recoinage. It might even be advisable, in order to secure a wide margin between the coin and the bullion dollar, to begin the new system by recoining at the outset all present gold coin into coins of less weight, the government keeping the difference as a reserve to help create its bullion reserve needed for operating the proposed system. This would, incidentally, have the fiscal advantage of saving the expense of creating such a reserve by taxation or loans.

We now come to another important restriction on changes in the weight of the bullion dollar which should be imposed in order to prevent speculation embarrassing to the government. This restriction is that no single shift in the bullion dollar may exceed the extent of the brassage. That is, if the brassage is 1 per cent, no one shift shall exceed 1 per cent.

If this were not provided but the bullion dollar should at any time be raised more than 1 per cent, if, e.g., the shift was from a bullion dollar of 38.7 grains to 40 grains (and from a quantum of bullion required by the mint of 39.087 grains to 40.40 grains), the government might be embarrassed by speculation. The new pair of figures (40 and 40.40) would both be above the range of the old pair (38.7 and 39.087); that is, the lower (40) of the new pair would be higher than the higher (39.087) of the old pair. When it was known or expected that these changes were to be made on a certain date, speculators would hurry bullion to the mint in advance of that date and for each 39.087 grains receive a coin dollar. With this dollar they could, as soon as the set date arrived, return and demand redemption in 40 grains. Thus they would win overnight 40−39.087, or 0.913 grains

on each 39.087 grains originally held. Again, if the bullion dollar were changed too much at any time in the opposite direction, as, say, from 39.7 grains to 37 grains, owners of gold coin could get it redeemed in bullion at the old rate today and mint this bullion at the new rate tomorrow. Each coin dollar they could redeem today in 38.7 grains gold bullion and tomorrow under the new arrangement they could get a dollar from the mint for only 37 grains plus 1 per cent brassage, or 37.37 grains, still leaving $38.7-37.37$, or 0.33 grains of bullion for overnight profit on each original dollar invested in the speculation.

But if the permissible shift in weight of the bullion dollar were not over 1 per cent in either direction, no such profit would be possible. The restriction in the shift to 1 per cent at a time is ample to permit of all the movement ordinarily required, provided the shift is made often enough. It might be monthly, or 12 per cent per annum; it might be bimonthly, or 6 per cent per annum; it might be quarterly, or 4 per cent per annum. Moreover, the margin for each shift might be narrowed or widened by making the brassage three-fourths of 1 per cent or less, or 1½ per cent or more.

One important question remains: How can we know what changes to make from time to time in the weight of the bullion dollar? The answer is: By index numbers of prices, such as those of the United States Bureau of Labor, Bradstreet, Gibson, Sauerbeck, the *Economist*, or the British Board of Trade. Any of these would afford a good guide and they all agree fairly well.

When once a system of index numbers is fixed upon, their numerical calculation becomes a mere matter of clerical arithmetic. If the official index number should show the price level to be, say, one-half of 1 per cent above the base level from which the system started, it would become mandatory to increase the gold bullion dollar by one-half of 1 per cent (i.e., to decrease the bullion prices by one-half of 1 per cent), and so on for any increase or decrease—subject, of course, to the restrictions above imposed. Thus if the price level were 1 per cent below normal, the bullion dollar could be reduced by only 1 per cent in any one quarter of the year; but the full correction could be reached in three quarters unless the deviation were aggravated in the meantime; and in that case the correction would follow steadily on the heels of the deviation. Except in paper-money times there never was, I think, a historical case of a persistent rise of prices over any large part of the world as great as 1 per cent a quarter or 4 per cent a year for more than two or three years, while the falls of prices

have been less violent, excepting after crises. Under the system here proposed there would be little opportunity for crises to incubate.

150. CRITICISM OF THE COMPENSATED DOLLAR[1]

By F. W. TAUSSIG

I

It must be admitted at the outset that the plan, if carried out with iron consistency for a considerable stretch of time, would achieve the result mainly had in view—the prevention of a long-continued and considerable rise in prices. No one who holds to the doctrine that the general range of prices is determined by the relation between the quantity of commodities and the volume of the circulating medium, and that the volume of the circulating medium in the end depends, *ceteris paribus*, on the amount of coined money, can do otherwise than admit the logical soundness of the scheme.

More stress should be laid, however, than Professor Fisher lays, on the fact that the plan can work out its results only through its effects on the quantity of coined gold. The connection between the quantity of coined money and general prices is by no means a close one. It is not only loose and uncertain, but we are much in the dark concerning the degree of looseness and uncertainty. Economists should be very chary of prediction in such matters, and Professor Fisher makes prediction which the event might greatly falsify. It seems highly improbable that fluctuations in prices would cease, or that a smooth course would be followed as is indicated on Professor Fisher's chart. So long as the modern mechanism of credit continues to be used fluctuations in prices seem to me inevitable. A long-continued considerable advance would alone be prevented. Commercial crises would not be prevented, nor, in my judgment, appreciably abated. Professor Fisher's predictions on this subject rest upon the particular theory of commercial crises which he has developed elsewhere. That theory does not seem to me established, and I have little faith in predictions that are based upon it. Nor do I believe that labor discontent is as closely connected with changes in general prices as Professor Fisher intimates.

[1] Adapted from "The Plan for a Compensated Dollar," *Quarterly Journal of Economics*, XXVII (1913), 402–16. As adapted by Marshall, Wright, and Field in *Materials for the Study of Elementary Economics*. The University of Chicago Press.

II

What is to be said now of the possibility of securing the adoption of such a plan?

An international agreement for its adoption seems to me in the highest degree unlikely. Let it be recalled how repeated were the endeavors, under stress greater than felt in recent years, to bring about an agreement for international bimetallism. A fall in general prices and in money incomes is a phenomenon much more unwelcome than a rise. The earlier fall in prices, moreover, was bitterly felt, not only by the debtor classes, but by all the protectionists. The movement for international bimetallism had powerful support in political circles as well as among the economists. Yet it never had a ghost of a chance. So great is the rivalry between nations, so intent is each upon its own advantage, so jealous are they of each other, so strong above all is the spirit of selfishness and mercantilism in their economic policies, that it seems to me hopeless to expect them to come to an understanding on a matter of this sort.

Even if, by some unexpected stroke, an international agreement were to be secured, it would rest upon the frailest basis. Any war would put an end to it. Any stage of depression in an important country would render it in the highest degree irksome, would lead to its revocation by some one country, and then would cause the whole structure to topple over. Not least, there would be differences concerning the index number of prices to be used in fixing the seignorage. Prices do not move parallel in different countries. It is inevitable that they should sometimes rise in one country while falling in another; or rise in one more than in another, or fall more. Which country's index number should govern? If indeed all countries were convinced that a disastrous depreciation of money were impending, and if they were resolutely determined to sink all differences and all selfish interests in order to prevent it, they might act on the basis of a compromise index number settled by an international commission. But the mere mention of these conditions precedent suffices to show how far they are from being present.

The question arises whether it would be feasible for one country to adopt the plan. It would be feasible in the same sense that it would be feasible for all countries together to adopt it. One country alone, carrying it out with unflinching consistency, might secure the desired result, subject to the qualifications which have already been

indicated. But that any one country would, in fact, adopt it alone seems to me in the highest degree improbable.

Consider for a moment the mode in which the scheme would work in detail if adopted by a single country. The immediate effect of a seignorage would be, as Professor Fisher points out, a readjustment of the par of foreign exchange. The exporter would find the par of exchange lessened, and in terms of domestic money (compensated dollars) he would receive less than he got before. All commodities of export would fall in price at once or fail to rise to the extent of the seignorage. The exporters would be as hotly indignant with the plan as if an excise tax had been imposed on their commodities without any possibility of their raising the price of their products. Consider for a moment what would be the state of mind of our cotton-exporting South. Is it to be supposed that any set of legislators could resist the political pressure from the various exporting sections and carry out the scheme unflinchingly? Can we imagine a congressman telling his constituents that they need only wait a while, until all money incomes and all prices had adjusted themselves to the new conditions? that *then* nobody would be worse off or better off than before? To ask this sort of question is to answer it.

III

In view of all these complications, uncertainties, and political and sectional obstacles, the question presents itself whether the emergency is so serious, the evil so great, the gain to be secured so unmistakable, that it is worth while to press so far-reaching a change.

Professor Fisher has predicted that prices will rise further. He is disposed to believe that there will be, not only a rise, but that there will be a considerable rise. I hesitate to enter the domain of prediction. I am inclined to believe that the rise in prices will not cease for the next decade; but whether it will be considerable or moderate or negligible in extent I should not venture to say. Predictions concerning the output from the mines are to be taken with the greatest caution. We all recall the predictions which Suess made in 1892. The distinguished geologist believed that the prospects of an increased production of gold were of the slightest, and that the world must fall back on the use of both metals. How different the course has been from that which he predicted! There are those who believe that the output of gold, so far from continuing to increase, has reached, or is

approaching, its maximum. For myself, I should not be surprised if there were a cessation in growth, and should certainly be surprised if there were not a relaxation in the rate of growth.

Further: it deserves to be borne in mind that the total supply of the precious metals is now so much greater than it was twenty years ago that the same annual increment will have much less effect on prices. This is the familiar consequence of the durability of the precious metals.

Finally, a circumstance should be borne in mind which bears, not only upon the intrinsic desirability of a regulative plan, but also upon the attitude of the general public and the consequent political and industrial possibilities. The economist is thinking and reasoning about the change which has been of special interest for him, the general rise in prices. The man on the street is thinking about the exceptional rise in prices of one important set of commodities. Anyone who will examine with care the index numbers of our Bureau of Labor will see what a marked rise, much beyond that of the general index number, has appeared in the prices of farm products, and especially in the prices of meat. That special advance has taken place within the last three or four years. It is precisely within this period that general attention has been turned to rising prices. What the public has had chiefly in mind has not been the general change, but the particular change in the commodities of wide consumption. This, I believe, is the main cause of labor unrest.

Whatever be the particular causes that have led to the high prices of food, economists agree that these causes will operate irrespective of any compensated-dollar plan. This would simply serve, at its best, to keep general prices where they are, leaving each particular group of commodities to its own particular causes. If the compensated-dollar plan were to be adopted, and if the prices of food should continue to mount, there would be disappointment for the general public, but nothing to surprise the economist. And, conversely, it is entirely possible that the rise in the cost of living, that is, the special rise in the prices of foodstuffs, will reach its end irrespective of any monetary change whatever. The general rise in prices and money incomes, to repeat what has already been said, is not unwelcome to the great majority of people. Its incidental consequences are perceived and debated chiefly by the economists, such as the effects on the creditor class and the slowness of so-called fixed incomes to rise accordingly. The general public is concerned chiefly with the

conspicuous rise in the prices of foodstuffs, which is ascribable to causes very different from those that bring the general rise, and can be reached only by remedies very different.

In sum, I am not convinced that the evils of the present system are so great as to call for the extraordinary remedy proposed. If, indeed, consequences of the most serious sort were imminent from an overwhelming increase in the gold supply, we might feel disposed to move heaven and earth to prevent them. Obstacles from international jealousy, or from widespread misconceptions and fallacies, could then only spur us to greater exertions. But if the evils are as yet not unbearable; if those against which the public most rebels are due chiefly to other causes than the mere increase in gold supply; if the remedy proposed is one whose operation is far from certain, likely to lead to complications of its own, and in danger of being discarded on its first failure to work a cure, let us bear the ills we have.

VIII

THE EXISTING SYSTEM OF THE UNITED STATES AND PRINCIPLES OF REGULATION

Introduction

The present monetary system of the United States and the various provisions with reference to legal tender, redemption, etc., show at every hand the marks of our checkered monetary history. Many of the provisions that exist are mere survivals and are understandable only by reference to our earlier history. On the other hand, there are numerous important principles in use today that have been developed out of our varied experience—principles which give to the present system as a whole a reasonable degree of safety and economy. The greenbacks, however, appear to remain a source of more or less apprehension, particularly since the passage of the Federal Reserve Act. But while the system is on the whole safe enough, it appears to be unnecessarily complicated and clumsy. The elimination of certain of the forms of currency in use and a thorough overhauling of the laws with a view to simplifying and unifying them would prove a very useful service.

All this, however, relates only to money that is issued or controlled by the government directly. Paper money issued by banks and checks, or deposit currency, remain to be treated as separate problems in themselves. It is these forms of currency that are designed to give the necessary flexibility, or elasticity, to the monetary system as a whole; and as such they give rise to problems of peculiar difficulty. The treatment of these forms of currency, however, must be reserved until the general principles of banking and credit have been discussed.

151. VARIOUS FORMS OF MONEY IN THE UNITED STATES[1]

A. GOLD COINS

While the gold dollar is the unit and standard of value, the actual coinage of the $1 piece was discontinued under authority of the act of September 26, 1890. Gold is now coined in denominations of

[1] Adapted from *Circular No. 52* of the United States Treasury Department, 1910.

$2.50, $5, $10, and $20, called, respectively, quarter-eagle, half-eagle, eagle, and double eagle.

The total coinage of gold by the mints in the United States from 1792 to June 30, 1910, is $3,149,207,670.50, of which it is estimated that $1,531,074,997 is now in existence as coin in the United States, while the remainder, $1,618,132,673.50 represents the excess of exports over imports and the amount consumed in the arts. The gold bullion now in the United States is about $105,000,000.

B. SILVER COINS

The standard silver dollar was first authorized by the act of April 12, 1792. Its weight was 416 grains .8924 fine. It contained the same quantity of fine silver as the present dollar, whose weight and fineness were established by the act of January 18, 1837. The coinage of the standard silver dollar was discontinued by the act of February 10, 1873, and it was restored by the act of February 28, 1878. The total amount coined from 1792 to 1873 was $8,031,238, and the amount coined from 1878 to December 31, 1904, when the coinage was discontinued, was $570,272,610.

The subsidiary silver coins authorized by the act of April 2, 1792, are the half-dollar, quarter-dollar, dime, and half-dime. The half-dime, has, however, been discontinued as being inconveniently small. The subsidiary silver was originally of proportional weight with the dollar, but since 1853 has been coined about 7 per cent lighter.

The amount of full-weight fractional silver coined prior to February 21, 1853, was $71,734,964.50, and the amount of subsidiary silver coined since that year is $272,331,351.45.

"In order to procure bullion for the subsidiary silver coinage, the superintendents with the approval of the Director of the Mint, as to prices, terms, and quantity, shall purchase such bullion with the bullion fund. The seignorage thereon shall be credited to a special fund denominated the silver profit fund." (Revised Statutes, sec. 3526).

C. MINOR COINS

The minor coins of the United States shall be a five-cent piece and a one-cent piece. The alloy for the five-cent piece shall be of copper and nickel, to be composed of three-fourths copper and one-fourth nickel. The alloy of the one-cent piece shall be 95 per cent of copper and 5 per cent of tin and zinc. For the purchase of metal for the minor

coinage a sum of not exceeding $250,000 shall be transferred by the Secretary of the Treasury to the credit of the superintendent of the mint at Philadelphia. The seignorage arising from the coinage of the minor coins shall be credited to a special fund known as the minor-coinage profit fund, the balance of which shall be from time to time, at least twice a year, covered into the Treasury (Revised Statutes, secs. 3515 and 3528).

D. UNITED STATES NOTES

The United States notes or "greenbacks" were first issued during the Civil War to meet the expenses of the government. Since 1879 there have been outstanding $346,681,016. They are backed by a cash reserve of $150,000,000 as a special fund in the Treasury. The amount never increases or decreases, for the law provides that if redeemed in cash at the Treasury they shall be promptly reissued. They are mainly in five- and ten-dollar denominations and fill a sort of middle place in our currency.

E. TREASURY NOTES OF 1890

These government notes were issued in the purchase of silver bullion under the terms of the Sherman Silver Purchase Act of 1890. There were in 1893 some $155,000,000 outstanding; but they are now canceled as fast as received at the Treasury, so that they are constantly disappearing from circulation. Originally amounting to $155,931,002, there were left outstanding in 1913 only $2,709,000. They are in various denominations. When retired, their place is taken directly by silver dollars coined from the bullion originally purchased with the notes; indirectly their place is filled by silver certificates issued as representative of silver coin.

F. GOLD CERTIFICATES

These certificates date back to the Civil War. The inconvenience of gold for everyday exchange transactions led to an authorization of the Secretary of the Treasury to receive gold in sums of not less than $20 and to issue certificates in their place. None may be issued in a denomination of less than $10. It is provided that at least one-fourth of the certificates shall be in denominations of $50 or less. They are designed to meet the needs of our large monetary transactions. The total amount of gold certificates now outside the Treasury is $802,754,199.

G. SILVER CERTIFICATES

The use of silver certificates dates back to 1878, being authorized by the Bland-Allison Act. The Secretary of the Treasury is required to accept all silver in sums of not less than $10, and to issue certificates therefor in denominations of $10 and less. They form the bulk of our small bills and have largely superseded the use of the silver they represent. The amount outside the Treasury on July 1, 1910, was $478,597,238, while the amount of silver dollars outstanding was only $72,432,514.[1]

152. REDEMPTION OF SUBSIDIARY AND REPRESENTATIVE MONEY[2]

Gold coins and standard silver dollars, being standard coins of the United States, are not "redeemable."

The position of the silver dollar in our system is anomalous in that it is regarded in law as a standard coin and hence is not redeemable, while in essence it is no more standard than fractional silver or paper currency. The reason for this is historical. We have not yet got entirely over to the single gold standard; we have what has been aptly called a limping standard—the silver is still carried along as a full legal-tender coin, but it is coined only on government account. There is, however, a system of indirect redemption which in practice has thus far proved quite as effective as would a specific redemption in gold. In all payments to itself the Treasury receives silver on an equality with gold, and in all payment from itself to others it provides gold if that metal is desired; but in no case does it force silver upon an unwilling person. By the Currency Act of 1900 it is provided that silver shall be maintained at a parity with gold, and that it shall be the duty of the Secretary of the Treasury to maintain such parity. In case the above method of indirect redemption should not prove efficacious, the Secretary would be obliged to resort to more direct means.

Subsidiary coins and *minor coins* may be presented, in sums or multiples of $20, to the Treasurer of the United States or to an assistant treasurer for redemption or exchange into lawful money.

[1] Bank notes are discussed in Part II, selections Nos. 125–29.

[2] Adapted from *Circular No. 52* of the United States Treasury Department, 1910.

United States notes are redeemable in United States gold coin in any amount by the Treasurer and all the assistant treasurers of the United States.

Treasury notes of 1890 are redeemable in United States gold coin in any amount by the Treasurer and all the assistant treasurers of the United States.

Gold certificates, being receipts for gold coin, are redeemable in such coin by the Treasurer and all assistant treasurers of the United States.

Silver certificates are receipts for standard silver dollars deposited, and are redeemable in such dollars only.

"Coin" obligations of the Government are redeemed in gold coin when gold is demanded and in silver when silver is demanded.

153. LEGAL-TENDER PROVISIONS[1]

Gold coin is legal tender at its nominal or face value for all debts, public and private, when not below the standard weight and limit of tolerance prescribed by law; and when below such standard weight and limit of tolerance it is legal tender in proportion to its weight.

Standard silver dollars are legal tender at their nominal or face value in payment of all debts, public and private, without regard to the amount, except where otherwise expressly stipulated in the contract.

Subsidiary silver is legal tender for amounts not exceeding $10 in any one payment.

Treasury notes of the act of July 14, 1890, are legal tender for all debts, public and private, except where otherwise expressly stipulated in the contract.

United States notes or "greenbacks" are legal tender for all debts, public and private, except duties on imports and interest on the public debt. Upon resumption of specie payments, January 1, 1879, they were made acceptable in payment of duties on imports by treasury order and have been freely received on that account since that date, though the law has not been changed.

Gold certificates, silver certificates, and national bank notes are *not* legal tender, but both classes of certificates are receivable for all public dues, while national bank notes are receivable for all public

[1] Adapted from *Circular No. 52* of the United States Treasury Department, 1910.

dues except duties on imports, and may be paid out by the Government for all salaries and other debts and demands owing by the United States to individuals, corporations, and associations within the United States, except interest on the public debt and in redemption of the national currency. All national banks are required by law to receive the notes of other national banks at par.

The minor coins of nickel and copper are legal tender to the extent of 25 cents.

Foreign coins are not legal tender. Section 3584 of the Revised Statutes of the United States provides that no foreign coins shall be legal tender in the United States. They were legal tender, however, until 1854.

154. MONETARY STOCK OF THE UNITED STATES[1]

Kinds	In Treasury and Mints	In Circulation	Total Stock
Gold coin and bullion	$1,279,112,110	$611,544,681	$1,890,656,791
Silver dollars	495,532,993	70,300,485	565,833,478
Subsidiary silver	22,040,989	159,965,698	182,006,687
Total metallic	1,796,686,092	841,810,864	2,638,496,956
United States notes	8,835,369	337,845,647	346,681,016
Treasury notes of 1890	11,237	2,427,763	2,439,000
National bank notes	35,491,862	715,180,037	750,671,899
Total notes	44,338,468	1,055,453,447	1,099,791,915
Aggregate metallic and notes	1,841,024,560	1,897,264,311	3,738,288,871
Gold certificates	54,825,730	1,026,149,139	.....
Silver certificates	12,248,023	478,601,977	.....
Total certificates	67,073,753	1,504,751,116	.....
Aggregate	.....	$3,402,015,427	$3,738,288,871

[1] *Annual Report of the Secretary of the Treasury*, June 30, 1914, pp. 308–9.

155. PAPER CURRENCY, BY DENOMINATIONS[1]

Denominations	United States Notes	Treasury Notes of 1890	National Bank Notes	Gold Certificates	Silver Certificates	Total
One dollar	$ 1,823,218	$ 359,949	$ 342,763	.....	$179,680,127	$182,206,057
Two dollars	1,367,225	230,221	163,786	.....	63,907,425	65,668,657
Five dollars	202,996,730	584,810	137,195,685	.....	209,369,577	550,146,802
Ten dollars	93,753,256	703,600	331,746,930	$282,555,660	20,993,971	729,753,417
Twenty dollars	8,470,812	329,870	231,079,920	267,294,054	5,997,270	513,171,926
Fifty dollars	1,690,275	12,650	20,651,300	58,659,255	10,479,310	91,492,790
One hundred dollars	3,775,000	131,900	31,504,150	87,959,900	382,820	123,753,770
Five hundred dollars	3,867,500	.....	88,500	21,337,500	20,500	25,314,000
One thousand dollars	29,927,000	86,000	22,000	67,068,500	19,000	97,122,500
Five thousand dollars	.....	.....	.....	73,460,000	.....	73,460,000
Ten thousand dollars	10,000	.....	.....	222,640,000	.....	222,650,000
Fractional parts	.....	.....	53,045	.....	.....	53,045
Total	347,681,016	2,439,000	752,848,079	1,080,974,869	490,850,000	2,674,792,964
Unknown, destroyed	1,000,000	.....	2,176,180	.....	.....	3,176,180
Net	$346,681,016	$2,439,000	$750,671,899	$1,080,974,869	$490,850,000	$2,671,616,784

[1] Adapted from *Annual Report of the Secretary of the Treasury*, June 30, 1914, p. 314.

156. RATIO OF GOLD TO THE TOTAL STOCK OF MONEY AND PER CAPITA CIRCULATION

Dates	Total Stock of Money	Gold	Percentage Gold	Circulation per Capita
July 1, 1906.....	$3,069,976,591	$1,475,706,765	48.07	$32.32
July 1, 1907.....	3,115,728,887	1,466,389,101	47.06	32.22
July 1, 1908.....	3,378,764,020	1,618,133,492	47.89	34.72
July 1, 1909.....	3,406,328,354	1,642,041,999	48.20	34.93
July 1, 1910.....	3,419,591,483	1,636,043,478	47.85	34.33
July 1, 1911.....	3,555,958,977	1,753,196,722	49.30	34.20
July 1, 1912.....	3,648,870,650	1,818,188,417	49.82	34.34
July 1, 1913.....	3,720,070,016	1,870,761,835	50.28	34.56
July 1, 1914.....	3,738,288,871	1,890,656,791	50.57	34.35

PART II

BANKING

I

THE VARIOUS FORMS AND SERVICES OF BANKING

Introduction

It is impossible to give a precise definition of banking, for the reason that at one time or another the most widely differing economic functions or services have been designated by the term. Even now it includes various forms of financial operations based on substantially different principles. Numerous writers, however, ignoring the popular or business connotations of the word, have attempted to limit the discussion of banking to a particular type of operation, namely, the creation of notes or checks, which are payable on demand, and which thereby furnish media of exchange to supplement the work of money proper in the economic process. While this type of operation is unquestionably of great importance, it is nevertheless only *one* form of banking, and to treat of it exclusively is to narrow the field to an extent that affords an entirely inadequate understanding of the subject.

It is the purpose of the readings in this chapter, first, to set forth in a very general way the two fundamental types of banking operations—the commercial and the investment; second, to enumerate the various forms of banking institutions that have been developed in the carrying out of these fundamental operations; and third, to indicate the great variety of services that are in fact performed by the typical commercial banking institution. All of this is but introductory, however—designed to afford a sort of bird's-eye view of the problem of banking as a whole, and to serve as a point of departure for the detailed study to follow.

It should perhaps be added here that banking (using the term loosely) is one of the oldest of institutions, dating back to a remote antiquity. Archaeologists have discovered, for instance, that Assyria, as early as eight centuries before the Christian era, appears to have had a well-developed system of bills of exchange, promissory notes, and transfer checks, very similar to those of our own day.

Among the Greeks and Romans, also, most of the operations typical of modern banking were common. The Middle Ages, however, was a period of stagnation in banking affairs, as in practically everything else, and it was not until the twelfth century that modern banking history began. In the great commercial cities of Italy and Spain banking developed rapidly between the twelfth and the sixteenth centuries and appears to have been characterized by many of the problems that confront us today. A little later the famous bank of Amsterdam, though of a simple type, was largely responsible for the commercial pre-eminence enjoyed by Holland in the sixteenth and seventeenth centuries. The way in which modern banking originated in England and the general character of the services performed are indicated by the selection on "Goldsmith Bankers in England."

A noteworthy feature of banking in mediaeval Europe was the rise, along with commercial institutions, of numerous great investment bankers or financiers who, through their control of enormous capital resources, were at times almost able to sway the destinies of nations. The Money Trust appears to have been quite as menacing then as now!

1. COMMERCIAL VERSUS INVESTMENT BANKING[1]

BY WILLIAM A. SCOTT

In order to draw the line between commercial and investment banks, attention must be riveted upon the functions which each performs in the economy of the nation. Commercial banks are essential parts of the machinery by which goods and services are exchanged in the everyday conduct of business. Investment banks are essential parts of the machinery by which the savings of the people are collected and applied to the production and transportation of goods and to the service of such public bodies as the federal, state, county, township, and municipal governments.

In order to comprehend the precise rôle which commercial banks play in the daily exchange of goods and services, we must note certain features of our credit system. To sell and to buy on time are very common practices in modern business. The manufacturer frequently buys raw materials and agrees to pay for them after their transforma-

[1] Adapted from "Investment vs. Commercial Banking," *Proceedings of the Second Annual Convention of the Investment Bankers Association of America*, 1913, pp. 76–80.

tion into completed products. The jobber frequently buys goods to be paid for after he has sold them. The farmer frequently buys seed, fertilizer, cattle for fattening, etc., to be paid for when the crop has been harvested or the animals sold to the butcher.

The explanation of these practices is to be found in the growing separation of producers and consumers and in the lengthening of the period of production caused by the constant extension of the areas within which goods are marketed and of the use of machinery in manufacturing. Before paying for them consumers like to receive the goods purchased, and middlemen not only to receive them but to sell them again. Manufacturers find advantage in being able to pay for labor and raw products after they have been transformed into completed goods and sold to middlemen or consumers. Hence an interval must elapse between purchase and payment measured by the length of time required for the transportation, selling, and manufacturing processes.

The practice of buying and selling on time results in making practically every business man both a debtor and a creditor, and renders it necessary for each one to meet his debts as they mature by means of the amounts paid by others in settlement of their obligations to him.

It is rarely possible, however, for a business man to make the maturities of the debts due him and the debts due by him to others exactly correspond, and he therefore finds himself under the necessity of transforming into means of payment the obligations of other people due in the future. This service the commercial bank performs for him, and in this consists its unique function in the national economy.

The means by which this service is performed is the discount of the evidences of indebtedness of others to him, or of his own personal notes, and this in the vast majority of cases is accomplished in this country by exchanging these credit documents for balances on a checking account, which balances can be transferred at will to other people at home, in other cities, or in other countries or transformed into hand-to-hand money.

The service rendered by the investment bank differs greatly from that of the commercial. It acts as an intermediary between the person who has accumulated capital and those who are in a position to invest it in fixed forms. Two processes are here involved: the accumulation of the savings of the community on the one hand, the development of natural resources and the construction and management of

manufacturing and transportation agencies on the other. The transfer of capital to public bodies, such as central governments, states, municipalities, and other political divisions, for unproductive consumption is a process also carried on by investment banks similar to the other in its nature, but having peculiarities which place it in a class by itself.

It is the business of the investment banking institutions of a country to see that this work of directing the savings of the country into its various enterprises is economically and efficiently done. It is their business to stimulate saving and to provide facilities by which every person who saves can readily put his accumulated funds to productive use. It is their business to search out opportunities for investment, to see to it that the natural and human resources of the nation are used to the best possible advantage in the promotion of its economic interests. This is a great work, as important and essential to the well-being of the nation as that which commercial banks or institutions of any other kind perform.

2. A CLASSIFICATION OF BANKS AND TYPES OF BANKING OPERATIONS

Banks are commonly classified either according to the type of business in which they specialize, or according to the legal authority under which they conduct their business. Under the first classification we find the following: commercial banks, investment banks or bond houses, savings institutions, and trust companies. However, there is often a far from complete specialization in the work performed by these various institutions; indeed, "commercial" banks and trust companies as a general rule now perform nearly every kind of banking operation.

Under the second classification we have: national and state banks and private banks—the classification indicating the source of, or the absence of, specific authority to conduct a banking business. The term "state bank," however, has numerous connotations. Most commonly the term is used in connection with state institutions which engage in commercial operations. From this standpoint—the character of business carried on—savings banks and trust companies cannot be called state banks, even though incorporated under state law. Again, private unincorporated banks have also been classified as state banks where they are subject to regulation by the state. For our present purpose, however, the distinguishing feature is the chartering

by state governments. Trust companies, savings banks, bond houses where incorporated, and commercial institutions are all state banks in this classification.

Private banks are of various kinds: (1) small concerns which engage in a general banking business (largely savings), without any specific grant of authority; they may or may not be under the supervision of the state banking department; (2) various co-operative credit or loaning associations; (3) unincorporated investment banks, or bond houses.

But while banks may be classified into several different kinds of institutions, and while, from the standpoint of services performed, they offer a wide variety of advantages in the way of affording a place for the safe-keeping of money, transferring funds at small expense for the benefit of customers, providing a convenient and uniform system of currency, etc., there are nevertheless but two fundamental types of banking operations. In the last analysis all banking may be classified as either commercial or investment business.

3. THE VARIOUS SERVICES OF BANKS[1]

BY JAMES W. GILBART

Banks are useful as places of security for the deposit of money. The circumstance which gave rise to the business of banking in this country was a desire on the part of the merchants in London to obtain a place where they might lodge their money in security. Everyone who has had the care of large sums of money knows the anxiety which attends their custody. A person in this case must either take care of his money himself or trust it to his servants. If he takes care of it himself he will often be put to inconvenience, and will have to deny himself holidays and comforts, of which a man who is possessed of much money would not like to be deprived. If he entrusts it to others, he must depend upon their honesty and ability. Besides, in both these cases the money is lodged under the owner's own roof and is subject to thieves, to fire, and to other contingencies, against which it is not always easy to guard. All these evils are obviated by means of banking.

The bankers allow interest for money placed in their hands on deposit. By means of banking the various small sums of money

[1] Adapted from *The History, Principles, and Practice of Banking*, 1837. Michie's revision (1882), pp. 213–22. (G. Bell & Sons.)

which would have remained unproductive in the hands of individuals are collected into large amounts in the hands of the bankers, who employ it in granting facilities to trade and commerce. Thus banking increases the productive capital of the nation.

Another advantage conferred upon society by bankers is that they make advances to persons who want to borrow money. These advances are made by discounting bills, upon personal security, upon the joint security of the borrower and two or three of his friends, and sometimes upon mortgage. Persons engaged in trade and commerce are thus enabled to augment their capital, and consequently their wealth. The increase of money in circulation stimulates production.

Another benefit derived from bankers is that they transmit money from one part of the country to another. There is scarcely a person in business who has not occasion sometimes to send money to a distant town. This can be most conveniently done by paying the money into a bank, which in turn arranges with a correspondent bank in or near the distant town to pay the designated party the amount specified. Periodical settlements between the two banks make such transactions comparatively inexpensive. At the same time there is not the least risk of loss.

Wherever a bank is established, the public is able to obtain that denomination of currency which is best adapted for carrying on the commercial operations of the place. In a town which has no bank a person may have occasion to use small notes, and have none but large ones; and at other times he may have need of large notes and not be able to obtain them. The banks issue that description of notes which the receivers may require, and are always ready to exchange them for others of a different denomination. Banks, too, usually supply their customers and the neighborhood with silver; and if, on the other hand, silver should be too abundant, the banks will receive it, either as a deposit or in exchange for their notes. Hence, where banks are established, it is easy to obtain change. This is very convenient to those who have to pay large sums in wages or who purchase in small amounts the commodities in which they trade.

By means of banking there is a great saving of time in making money transactions. How much longer time does it take to count out a sum of money in pounds, shillings, and pence than it does to write a draft? And how much less trouble is it to receive a draft in payment of a debt, and then to pay it into the banker's, than it is to receive a sum of money in currency? What inconveniences would

arise from the necessity of weighing sovereigns, what a loss of time from disputes as to the goodness or badness of particular pieces of money!

A merchant or tradesman who keeps a banker saves the trouble and expense of presenting promissory notes which he holds or drafts which he may draw against customers. He may turn these over to his banker for safe-keeping and collection at maturity. He pays these into the hands of his banker, and has no further trouble. He has now no care about the custody of his bills, no anxiety about their being stolen, no danger of forgetting them until they are overdue, and thus exonerating the endorsers, no trouble of sending to a distance in order to demand payment. He has nothing more to do than to see the amount entered to his credit in his banker's books. If a bill be not paid it is brought back to him on the day after it falls due, properly noted. The banker's clerk and the notary's clerk are witnesses ready to come forward to prove that the bill has been duly presented, and the notary's ticket attached to the bill assigns the reasons why it is not paid.

Another advantage of keeping a banker is that by this means you have a continual reference as to your respectability. If a mercantile house in the country writes to its agent to ascertain the respectability of a firm in London, the first inquiry is, "Who is the banker?" And when this is ascertained, the banker is applied to through the proper channel, and he gives his testimony as to the respectability of his customer. When a trader gives his bill, it circulates through the hands of many individuals to whom he is personally unknown; but if the bill is made payable at a banking-house, it bears on its face a reference to a party to whom the accepter is known, and who must have some knowledge of his character as a tradesman. This may be an immense advantage to a man in business as a means of increasing his credit; and credit, Dr. Franklin says, is money.

By means of banking, people are able to preserve an authentic record of their annual expenditures. If a person pays in to his banker all the money he receives in the course of a year, and makes all his payments by checques, then by looking over his bank-book at the end of the year he will readily see the total amount of his receipts and the various items of his expenditure. This is very useful to persons who have not habits of business, and who may therefore be in danger of living beyond their means. A bank account is useful also in case of disputed payments. People do not always take receipts for money

they pay to their tradesmen, and when they do the receipts may be lost or mislaid. In case of death, or omission to enter the amount in the creditor's books, the money may be demanded again. Should the payment have been made in bank notes or sovereigns, the payer can offer no legal proof of having settled the account; but if the account was discharged by a checque on a banker, the checque can be produced and the payment proved by the officers of the bank, who can be subpoenaed for that purpose.

By keeping a banker people have a ready channel of obtaining much information that will be useful to them in the way of their business. They will know the way in which bankers keep their accounts; they will learn many of the laws and customs relating to bills of exchange. By asking the banker, or any of the clerks, they may know which is the readiest way of remitting any money they have to send to the country or to the Continent. If they have to buy or sell stock in the public funds, the banker can give them the name of a respectable broker who can manage the business; or should they be about to travel, and wish to know the best way of receiving money abroad, or be appointed executors to a will, and have to settle some money matters, the banker will in these, and many other cases, be able to give them the necessary information.

Banking also exercises a powerful influence upon the morals of society. It tends to produce honesty and punctuality in pecuniary engagements. Bankers, for their own interest, always have a rigid regard to the moral character of the party with whom they deal; they inquire whether he be honest or tricky, industrious or idle, prudent or speculative, thrifty or prodigal, and they will more readily make advances to a man of moderate property and good morals than to a man of large property but of inferior reputation. Thus the establishment of a bank in any place immediately advances the pecuniary value of good moral character.

4. THE GOLDSMITH BANKERS IN ENGLAND[1]

The development of banking in England was a mere outgrowth of the business of the goldsmith, and was entirely unaccompanied by legislation of any sort. The date at which the English goldsmiths extended their operations from mere trading in money and the precious metals to a regular system of private banking can be approximately

[1] Adapted from Palgrave, *Dictionary of Political Economy*, II, 227. (London: Macmillan & Co., 1910.)

set at 1645. A pamphlet written in 1676 entitled *The Mystery of the Newfashioned Goldsmiths or Bankers Discovered* informs us that the goldsmiths had extended their previous business to lending money and to most of the operations of modern banking, their largest advances being made to the king upon the security of the taxes. The goldsmiths allowed interest to those who placed money with them, and the receipts which they gave for these deposits passed from hand to hand as currency in much the same manner as Bank of England notes do now. That this business soon grew considerably is evident from the testimony of Sir Dudley North in 1680, who, on returning from abroad after many years, was greatly astonished at the new practice of merchants and others making payments by drawing bills on bankers, i.e., goldsmiths. Hence it will be seen that the goldsmiths, from the middle of the seventeenth century onward, assisted greatly to accustom people to the use of a paper currency.

The English goldsmiths of the seventeenth century in issuing their notes acted on quite a different principle from the continental banks of that date. Most of the continental banks professed to be merely banks of deposit of coin or bullion, and to hold in this form the full value of the bills issued against these deposits. Our goldsmiths and the Bank of England, following them, purported to give in their bills the equivalent of what they had received, but never pretended to take the deposit for any other purpose than that of trading with it. They did not make their issues square exactly with the deposits of coin and bullion entrusted to them, "but coined their own credit into money." In other words, they kept a comparatively small reserve as a basis for extensive deposit accounts in precisely the same manner as do modern commercial banks. This resulted occasionally in difficulties. The first recorded run on the private banks, or goldsmiths, was in 1667 after the disastrous defeat suffered by the English fleet at the hands of the Dutch at Chatham. Then the stoppage of the exchequer in 1672 seriously affected their credit; even their honesty was impugned; and in course of time it was found that paper money issued on the security of a small number of individuals could not circulate profitably in competition with that of a powerful joint-stock corporation, such as the Bank of England became in spite of the goldsmiths' opposition.

II

THE NATURE AND FUNCTIONS OF CREDIT

Introduction

An analysis of the principles underlying the institution of credit is fundamental to an understanding of banking. Indeed, it is often stated that banks are credit institutions, that banks deal in credit, or, in a word, that credit and banking are virtually synonymous. Again, it is often stated that modern industrial society is a credit society, the implication being that credit is the most significant factor in the present-day organization of industry and commerce. "Credit is the life-blood of commerce," "Credit is the heart and core of the modern business structure," are other common statements emphasizing the tremendous importance of this phenomenon that is called credit.

While credit may be readily enough defined, an understanding of its real nature and significance is not so easily gained. It is a concept rather than a visible something; or perhaps one might better say that it is incorporeal rather than tangible. It is therefore an elusive phenomenon: "Now you see it and now you don't see it." At any rate, the student usually has at first no little difficulty in grasping its essential nature. In particular, credit is very often confused with the *instruments* of credit. One can *see* a check or a promissory note, and such instruments are therefore likely to appear as the very essence of credit. They are, however, merely evidences of the antecedent credit process or transaction and as such are quite irrelevant to credit itself. It should be observed in this connection that in the treatment below the "Instruments of Commercial Credit" are discussed in a separate division following the general analysis of credit itself.

The subject may best be understood through a study of the reasons for giving and receiving credit and an analysis of the many ways in which it manifests itself in our everyday business activities. It will be found that, whatever the particular classification, all credit operations involve at bottom a common principle; though there has been much discussion as to just what this *basis* of credit is—a discussion, however, which appears to have been largely due to a loose or differing use of words. The selection below on "The Basis of Credit"

seeks to set forth the essential requirements for credit without attempting to reduce the matter to a definite word or statement. All credit operations will be found to involve an analysis more or less similar to the one there given.

But while the granting of credit always involves a similar sort of analysis, there emerges, in the use of the funds or goods borrowed on credit, a sharp differentiation, one that is fundamental to the entire study of banking; namely, the distinction between commercial and investment credit. The one is related to the process of manufacturing and marketing consumers' goods, converting raw materials into finished products in the hands of their final consumers; the other, to the creation of capital goods, machinery, tools and equipment, stores, factories, railroads, etc. The former usually gives rise, because of the very nature of the operations, to short-time credit instruments, notes, drafts, checks, etc.; the latter as a rule to long-time credit instruments, stocks, bonds, mortgages, etc.

In practice, however, this fundamental difference between commercial and investment credit has not always been clearly perceived, and some of the most serious problems of finance throughout our history have arisen from the frequent failure to differentiate in practice between investment and commercial operations. The readings in the present chapter are designed to set forth these fundamental differences, while the remainder of the book is devoted to an application of the principles here outlined. Indeed, banking in all its forms, so far as principles, as distinguished from the details of banking practice, are concerned, centers primarily around the use of either commercial or investment credit.

5. A DEFINITION OF CREDIT[1]

By J. LAURENCE LAUGHLIN

With the division of labor, the marvelous inventions of machinery, the prolongation of industrial processes (so that a unit of product can be more cheaply sold in the end), the growth and prodigious increase of all forms of capital have naturally led, as a help to this movement, to the evolution by society of the practical means by which men of affairs, when preparing for the future, are enabled with the least waste of efficiency to obtain control of property and capital in productive efforts. As a part of this evolution, as a practical means to an

[1] Adapted from *Principles of Money*, pp. 72–76. (Charles Scribner's, Sons, 1903.)

end involving futurity, credit has come into existence. In its simplest terms it is a transfer of commodities involving the return of an equivalent at a future time.

Whenever the time element is eliminated from a transaction, it will be seen at once that credit does not enter into it. A transfer of goods for which an equivalent is rendered on the spot would never be thought of as a credit operation. In fact, buying and selling for an immediate consideration (or "cash") is generally understood to be the very opposite of credit. By general agreement usage would never allow an obligation entered into for the future delivery of personal service to be spoken of as credit; and rightly. A contract to work ten hours a day for the coming three months should not be regarded as a credit obligation. We may, therefore, agree to confine credit operations to goods or property of a transferable kind. And, in the conception of credit, with the transfer goes the right to make any ordinary use of the goods; not merely to keep possession, but to destroy entirely—and commonly with the purpose of reproduction—if that is the best means of increasing product and getting back goods for repayment. The specific goods borrowed need not always be returned in kind; an equivalent will suffice; not the same wheat, or wool, or gold which was borrowed, but the equivalent of them.

Many contracts appear as results of credit transactions. For instance, A borrows the means to finish the building of his house; he obtains certain goods which he inserts into his structure, and gives a promissory note to B for its repayment, secured by a pledge of his property in the form known to the law as a mortgage. The note and the mortgage are merely the legal methods adopted to make repayment more certain; they are not essential in the credit itself. The real importance should be put on the transfer to A of means returnable to B in the future. Legal and customary forms intended to secure repayment have created different devices in the same community, while the prevailing habits of different countries have given rise to varying methods of obtaining the same result. In one situation, for instance, a book entry, in another a bill of exchange, in another a promissory note is found most suitable. In short, the circumstances of the loan, the opinions and convenience of the parties to the contract, and the like, may bring into use a great variety of legal forms, all resulting from the primary transfer of goods. The undue insistence upon legal forms arising out of credit draws attention away from the economic processes essential and intrinsic in

it to the nonessential and external forms outside of it. The familiar case of a bank loan illustrates this truth: there is the essential element in the transfer of capital to the borrower on an obligation to return an equivalent value at a fixed future time; but the evidences of the transaction, whether in the form of a book entry as a deposit, or the passing of the bank's own notes, or the giving of a cashier's draft for the sum, are secondary matters, or consequences, arising out of the original credit operation. As said before, the latter merely form the machinery for obtaining greater or less security with a view to repayment.

6. THE BASIS OF CREDIT

There has been a long-continued discussion over the basis of credit operations, that is, the reasons why credit is extended by one person to another. One party to the controversy has stoutly insisted that *confidence* is the basis of all grants of credit; that if one did not have confidence that a borrower would repay a loan he would never think of making the loan, unless perchance for personal or philanthropic reasons. Others have held that property, rather than confidence, is the basis of all genuine credit transactions. Without attempting to analyze the causes for this apparent difference of view, a tabular exhibit of the points usually investigated before credit is extended by up-to-date business concerns will show that while *confidence* must exist before a loan will be granted, such confidence is based in part on the borrower's property and in part on his personal characteristics.

The customary matters investigated may be grouped in two general classes as follows:

Pertaining to Character of Borrower

- *a*) Record for honest dealing
- *b*) Personal habits
  1. Church affiliations
  2. Gambling and drinking tendencies
  3. Political ambitions
  4. Style of living; wife's social ambitions
- *c*) Reputation for ability
  1. Common-sense and shrewdness
  2. Age and general experience
  3. Success in this line of business
  4. Success in other lines of business

Pertaining to Character of the Business

- *a*) Ratio of quick assets to current liabilities
- *b*) Amount of capital invested and proportion owned
- *c*) Character of stock of goods
- *d*) Rate of turnover of stock
- *e*) Location of business, and character of competition
- *f*) Insurance carried

It will be apparent that these points are not entirely unrelated. A man of excellent business ability, for instance, would have his business properly organized, and on the other hand, if it were found that a business was poorly equipped and managed, it would be certain that the man's business experience or business capacity was strictly limited. Investigation of these two kinds, however, usually serves to furnish a more adequate basis for a sound judgment of the risks involved. Perhaps one may conclude from this analysis that before deciding to extend credit one should at any rate have *confidence* in two points: (1) in the ability of the borrower to pay as promised; and (2) in his willingness or intention to pay. One is a matter of property and business ability; the other a question of honesty and business reliability.

7. THE VARIOUS KINDS OF CREDIT

The modern world has been called a credit society. The Germans, for instance, classify the stages in the evolution of industry as follows: barter economy; money economy; credit economy. The mechanism of credit would therefore appear to be the center and core of modern industrialism. While this characterization may well be pushed too far, it is certainly true that credit today is found in practically every variety of business transaction and is in fact the basis for the great mass of commercial exchanges. The divisions of credit have been classified as follows: Public Credit; Capital Credit; Mercantile Credit; Individual or Personal Credit; and Banking Credit.

By Public Credit is meant chiefly the borrowing operations of governments, whether national, state, or local, through the issue of interest-bearing securities. The government promises to pay interest on a bond from year to year and to repay the principal at some stated future date. The purchaser of the bond accepts the government's promise of intention to pay and has faith in its ability to keep that promise. The government by means of its credit is therefore able to secure funds for present needs. An issue of paper money by the government is another example of a credit operation. Even without any fund for redemption purposes an issue of paper money will not for a time depreciate to worthlessness; a promise of ultimate redemption will give it some value so long as faith in the word of the government is not entirely shattered. At any rate, a partial reserve in coin,

as in the case of our greenbacks at present, will maintain the value of paper currency. To the extent of the uncovered issue we have a pure credit currency.

By Capital Credit, or Corporation Credit, to employ another term, is meant the credit used by corporations in procuring the necessary capital required in their business operations. The corporation agrees to return to the purchasers of its bonds at some future date the equivalent of the funds borrowed, with interest. The bondholder thus extends funds to the corporation because he believes the credit of the corporation is good. The purchaser of stock, also, trusts his funds to the managers of a corporation, and it is understood that he is to receive dividends in the future (if earned) and ultimately, if the business is liquidated, a return of his share of the capital. There is the obvious difference between a holder of stock and of bonds that one is an owner and the other a creditor, that the returns to the one are wholly contingent, and to the other definite, in so far as the mortgage is adequate. But credit, through the entrusting of one's funds to a third party, is an essential element in both.

It is the usual practice to exclude from Capital Credit investments made by individuals in a business partly or largely their own, such as a partnership. The difference between this sort of investor and the purchaser of securities, says Prendergast, is this: "Where a few men invest their funds in a business, those funds invariably represent their entire available means of wealth. They are working for themselves alone, and the profits of the business, whatever they may be, go to the owners alone. These owners . . . . have placed all they possess at the risk of the business. . . . . On the other hand, the general investor, who is seeking merely a nominal or reasonable interest upon the funds invested, is careful to so place those funds that his investments will be very well distributed," with a consequent lessening of the total risk. To use the economic terminology, the one is primarily a risk-taker and after profits, while the other is, as far as possible, a risk-avoider and is satisfied with interest alone. A better distinction between the two types of investment, however, is that credit, so far as fixed capital is concerned, is almost negligible in the case of the partnership, while with the purchaser of securities credit is the very basis of the transaction.

Mercantile Credit is the credit used by producers, wholesalers, commission merchants, retailers, etc., in connection with the manufacture and sale of commodities, that is, with the movement of goods

from first producer to ultimate consumer. For instance, a manufacturer who buys raw materials to be made into finished commodities may agree to pay the producer of the raw materials only after he has sold his product. He has thus been "trusted" by the producer; there has arisen a "time obligation," a future payment. Or the manufacturer may at once pay the producer with cash, procuring the cash by a loan from the bank, which he promises to repay after the goods are manufactured and sold. In this case he has used his credit with the bank instead of with the producer of the raw materials; but it is obvious that the nature of the operation is the same. A wholesaler or retailer may likewise purchase the goods he wishes to sell, on time, or on funds borrowed from a bank, as the case may be, agreeing to repay the loan after the goods are sold.

Mercantile Credit is to be distinguished from Capital or Corporation Credit by the character of the business which employs it and the nature of the use to which the funds are put. A characteristic feature of Mercantile Credit is that it usually runs for a short time, whereas Corporation Credit is usually extended for long periods. Mercantile Credit is represented by commercial promissory notes and bills of exchange rather than by bonds or stock certificates.

Personal or Individual Credit obviously takes its name from the fact that it is connected with individuals rather than with public or private corporations. It is the means by which an individual may secure goods for consumption purposes without an immediate payment of cash. The laborer who settles his bills on the weekly pay day, the salaried man who pays by check at the end of the month, and the farmer who settles his account at the village store when he sells his crops are cases in point. Personal Credit is distinguished from other credit in part by the character of the security furnished by the borrower, and in part by the use that is made of the things borrowed. The basis of the security is an indirect one, consisting primarily, not of actual property in hand, but of a recognized earning power from personal or professional services. The things borrowed are generally used for immediate consumption rather than for further production. Such credit is therefore often called "Consumption Credit." It is also sometimes spoken of as "Retail Credit," because it is used primarily in retail transactions. This, however, is confusing, because such a term might mean the credit of the "retailer" himself.

Personal Credit is usually extended without requiring a deposit of collateral as security and even without a written promise to pay in

the future. A promise is, however, implied, and the entry on the books of a retail store is the evidence of the credit transaction. "Book Credit" is a name commonly used in this connection; but this name describes not so much the character of the credit operation as the manner of "evidencing" the credit transaction. The credit on the books is an evidence that a personal credit has been granted.

The fifth form of credit has been called Banking Credit. As is well known, banks furnish funds to borrowers of every description; it is to the banks that one in need of credit naturally turns. But by Banking Credit is not meant the credit extended to individuals, corporations, merchants, and governments. Such forms of credit fall within the classifications given above. The essence of Banking Credit may be discovered only in the answer to the question, Where do the banks procure the funds which they loan to the business world? These funds are procured in part from the banks' own capital, and in part from the funds that have been left with them by individual depositors; but in the main it is through the use of their own credit.

A bank uses its own credit in much the same way as does an individual. A man who is responsible morally, who has a reputation for business honesty and ability, and who has security in the form of commodities that enter into trade, is able to borrow on his credit. He uses his good name and his property as means of securing funds for immediate use. A bank, likewise, if it possesses the confidence of the community, is able to extend its business by means of its credit. The simplest use of its credit is found in the entrusting of funds by depositors with the bank—for safe-keeping or use, as the case may be. There is a more important way, however, in which our large commercial banks use their credit. A bank with $100,000 cash on hand is able by means of its credit to do a business equal to five or six times this amount. This is accomplished through borrowing on its credit. Just as a government borrows when it issues paper currency, so a bank borrows when it creates obligations, either in the form of bank notes or deposit accounts against which checks may be drawn. The ordinary commercial bank usually owes on demand several times the amount of its cash. A bank is safe in thus extending its obligations so long as the management is efficient and the resources other than cash are ample. There are some special problems involved in the use and control of Bank Credit, but in essence it does not differ from the other forms of credit that have been enumerated.

8. COMMERCIAL VERSUS INVESTMENT CREDIT

Viewing credit apart from particular groups of persons or organizations, such as governments, corporations, wholesalers and retailers, banks, and private individuals, two distinct types of credit may be distinguished, namely, commercial and investment credit. This classification is of the foremost importance from the standpoint of economic analysis and a clear understanding of the principles underlying the various forms of banking operations.

Investment credit is that which is used in the financing and development of business enterprises such as railroads, factories, workshops, stores, farms, and mines. The funds borrowed are invested in fixed or durable forms of capital goods, as distinguished from consumptive goods. In consequence, the borrower does not expect to be able to repay the loan within a few weeks or months; rather, he plans to pay the principal of the loan out of the accumulated earnings of the business in the course of several years. The lender, similarly, regards such a disposal of his funds as permanent; hence the term *investment.*

Commercial credit, on the other hand, is used in financing the manufacture and marketing of goods, and it has to do only with consumptive goods. It is only another name for the mercantile credit described in the previous selection, viewed from another angle—that of the use to which the funds borrowed are put. Unlike the borrower of investment funds, the borrower here wishes to use his funds only temporarily. A concrete case will serve to illustrate the difference: A borrows, let us say, $10,000 and purchases a stock of goods with the money. Two months later he sells these goods for $11,000, or at a profit of 10 per cent. The goods purchased thus furnish the direct means of liquidating the loan. The borrower for investment purposes, on the other hand, invests the $10,000 in a factory. He does not contemplate selling the factory within a few weeks or months. On the contrary, he expects to use the factory for many years in the manufacture of commodities. It may take ten years or more before the accumulated profits will permit the repayment of the principal of the loan. The latter is a long-time process, requiring years for fruition; the former a short-time operation, carried to completion in a few weeks or months. It is by means of the former that industries are developed and continued; it is by the latter that the manufacture and marketing of goods are accomplished, that commodities are transferred through

purchase and sale from the original producer to the hands of the ultimate consumer.

9. THE IMPORTANCE OF INVESTMENT CREDIT

The importance of investment credit has often been underestimated by writers on the subject of credit. Nevertheless it plays quite as important a rôle in the world of business as does commercial credit. By means of government credit the individuals who purchase bonds receive interest on funds that might otherwise be either unemployed or less safely or remuneratively invested, while the government, on its part, is enabled to build a Panama Canal, wage wars of self-defense or conquest, construct public roads and buildings, street railways, electric lighting plants, etc. In so far as a government can perform certain services for society more effectively than can private business, there is clearly a direct social gain arising from the uses of this form of credit.

By means of capital or industrial credit the surplus funds of individuals are turned back into the channels of productive industry; they are transferred from non-productive to productive employments, thereby increasing the wealth and productive power of society. These private funds are converted into railroads, factories, shops, and farms which would not yet have come into existence without the use of investment credit.

An idea of the enormous extent of investment credit may be gained from the statistics of the bonds and stocks listed on the New York Stock Exchange. The principal of the bonds listed on the exchange amounts to a total of $14,310,553,000, classified in groups as follows:

Government and municipal, including foreign	$3,357,379,849
Railroad	8,213,374,750
Public utility and street railway	1,475,567,590
Manufacturing, industrial, and miscellaneous	1,264,232,950

The face value of the listed *stocks* amounts to $13,084,073,923.

It is estimated that for the country as a whole the bond houses every year market in the neighborhood of $2,000,000,000 of bonds. The significance of these enormous figures may be realized when one considers that the total wealth of the entire nation is estimated at about $120,000,000,000.

10. THE COMPLICATED SYSTEM OF COMMERCIAL CREDIT

It has become almost a trite saying that credit is the very life-blood of commerce and that without its wonderful assistance the enormous business of the modern world would be quite impossible. It is a commonplace, also, that the credit structure is a very uncertain mechanism, one that periodically breaks down, involving hundreds of businesses in financial ruin and indirectly demoralizing the commerce of an entire country. The precise manner, however, in which this credit structure is built up, with its intricate and complicated interrelations, is often not clearly understood. It is the purpose of the following analysis to trace these intricate relations and show the complicated interdependencies in the fabric of commercial credit.

Commerce relates to the movement of goods from the hands of those who perform the first operation in production to their final resting-place with the ultimate consumers. Commercial credit connects itself, therefore, with the various purchases and sales that are made in the extended process of marketing commodities. The nature and place of credit in this marketing process may perhaps best be made clear by assuming first a society that does business on a cash basis only.

To illustrate the process, let us begin with some raw materials in the form of iron ore and coal which are to be manufactured into farm machinery for sale to farmers. These raw materials normally pass through the hands of the following classes of business men: (1) the manufacturer of machinery; (2) the wholesale dealer; (3) the retail merchant, from whom they are purchased by the farmer. In the absence of credit the producer of raw materials would have to possess enough capital to defray the cost of producing these materials. Let us assume he sells them for cash to the manufacturer, who pays for them with ready money. In turn, the manufacturer, after converting the materials into finished machines, sells them in a new form to the wholesale dealer, who pays for them out of funds accumulated for the purpose. The wholesaler next passes them on to the retailer for cash, and the retailer disposes of them to the farmer for cash. In each case cash accumulated and in hand ready for payment is the significant feature. We have thus far, however, but half completed the commercial circle.

The farmer does not purchase the machinery as an end in itself. With it he produces crops for sale. He sells his annual produce to a

local dealer for cash; the local dealer sells these products to the commission merchant for cash; the commission merchant passes them on for cash to a retail store; and the storekeeper sells them for cash to his customers, who happen to be, let us assume, the laborers in the mines of iron and coal who were the original producers of the raw materials that went to the making of farm machinery. Thus we have the complete round of production.

In the foregoing analysis we have assumed each sale to be for cash; no one waits for his payments, and all keep the slate clear as they go. With such a method there is little danger of a general breakdown. If a purchaser has not the cash with which to pay for goods, he is refused the sale. Hence the seller is never dependent upon the future solvency of his purchaser. Sales may be restricted by a slackening of the industrial process; but there are never maturing obligations to meet and there is never a chain of failures, each due to the previous one. Let us now introduce credit into the system as outlined above.

It is evident that the farmer who buys the farm machinery is the ultimate demander of the raw materials purchased by the manufacturer. In the final analysis the farmer's cash pays for the labor of the workers in the mines of iron and coal. Or, traveling around the circuit in the opposite direction, it is the laborer's cash that really pays for the crops that have been produced by the farm machinery. Without credit, however, it is impossible for the precise cash paid by the farmer to the retailer to be used by the latter in paying the wholesaler, and so on up to the producer of the raw materials. In introducing credit into this system it will be necessary to assume for the moment a situation that does not represent the actual state of affairs. The corrective will be given in the paragraph following.

Let us assume that the producer of raw materials possesses enough cash to produce $10,000 worth of raw materials, paying his laborers in advance. Now let us assume that he sells these materials to the manufacturer on twelve months' time; that is, he agrees to wait twelve months for his pay. The manufacturer in the course of three months converts these raw materials into finished machinery and sells the machines on nine months' time to the wholesaler. In a month the wholesaler disposes of the machinery, letting the retailer have eight months in which to pay. In another month the retailer sells the machines to a farmer, agreeing to wait seven months Four months later the farmer sells his crops on three months' time to a local dealer,

who sells them in a month to a commission merchant on two months' time, the commission merchant in turn selling on one month's time to a retail store, and the retailer disposes of them within a month to the laborers who work in the mines, for cash received by them for producing raw materials. Cash would thus be paid to the retailer of farm produce just twelve months from the date of the first sale of the raw materials; and if this cash should be passed on promptly through the hands of the commission merchant, local dealer, farmer, retailer, wholesaler, and manufacturer to the original producer it could liquidate all the obligations as per schedule.

In actual practice, however, twelve months would be a long time for the producer to wait for his payment. Similarly, the periods of nine, eight, and seven months would be too long for the others to wait, for further production would be more or less halted meanwhile. In practice, therefore, credit extension is for much shorter periods, usually from one to four months, whether it be to the producer of raw materials, the manufacturer, or the middleman. How is this made possible?

The manufacturer, for instance, may give his note to the producer for three months and pay as soon as he sells to the wholesaler. The question now is, Where does the wholesaler get the funds with which to pay? Does he not have to wait until the retailer has disposed of the goods? This is where the banks come to the assistance of commerce. The wholesaler sells to the retailer on time, but instead of delaying his payment to the manufacturer, he procures a loan from his bank, giving as security therefor either his own note or the notes received from the retailer.[1] With this loan the wholesaler may pay the manufacturer at once. The loan from the bank is repaid when the retailer settles with the wholesaler. Therefore the bank instead of the dealer undertakes the waiting.

In the foregoing illustration it was the wholesaler who procured the loan from the bank. It may, in fact, be any one or several in the chain of buyers and sellers. The manufacturer, for instance, instead of asking the wholesaler to pay cash could accept a promissory note instead, and then sell this note to a bank for cash, that is, have

[1] The practice in this country has commonly been for the wholesaler to sell on open account, requiring no note, the retailer paying shortly in cash obtained by borrowing on his own note. Both wholesalers and retailers, however, have occasion to borrow from the banks.

it discounted. Or the retailer might borrow from a bank and pay cash to the wholesaler. Similarly, on the other side of the circle, the commission merchant may pay cash to the local dealer, borrowing from a bank for the purpose; and the retailer of the foodstuffs may sell to his customers on credit and borrow from a bank while waiting for his returns. It is quite immaterial which party procures the assistance of the banks, though in practice it usually becomes the custom for only certain ones in the chain to do so regularly.

The commercial structure which we have thus outlined is seen to be very closely interrelated; and it is because of this interdependence of factors that a "credit breakdown" has such far-reaching consequences. The credit circle cannot be broken at any point without more or less seriously disrupting the entire system. Suppose, for instance, that a long drouth or heavy rains ruin the agricultural produce and render it impossible for the farmer to pay the retailer as promised. This affects the retailer's ability to pay the wholesaler, and in turn the wholesaler's ability to pay the manufacturer, or his bank, and so on around the entire circle. Or suppose a strike in the manufacturing establishment should prevent the manufacturer from filling his selling orders. It becomes impossible for him to pay the producer on time; and the latter in turn is unable to meet his obligations as they fall due. The halting of the manufacturing process may compel the producer to restrict his output of raw materials, and hence discharge laborers. This affects the sales of the retailer of the farm produce, and hence his ability to pay the commission merchant, and so on around the circle. Obviously numerous other examples of this sort might be enumerated.

Whenever there is a break in the delicate structure at any point, there is always an attempt to stop the gap by calling upon the banks for assistance. Whoever finds himself unable to pay on time rushes to his banker for a loan. Indeed, if there is but a well-grounded fear that difficulties are likely to come, dealers often go at once to the banks for loans in anticipation of trouble to come. Without here going into an analysis of the responsibility thus placed upon the banking institutions, it should be emphasized that the success with which a community may pass through a period of disrupted credit operations depends upon the ability of the banks to expand their own credit sufficiently to tide the commercial world over the emergency.

11. IS CREDIT A FORM OF CAPITAL?[1]

By J. R. McCULLOCH

It is in the effects resulting from the transference of capital from those who are willing to lend to those who are desirous to borrow that we must seek for the advantages derivable from credit. All the operations supposed to be carried on by its agency, how extensive and complicated soever they may seem, originate, in fact, in a change in the actual holders or employers of capital. Nothing, indeed, is more common than to hear it stated that commodities are produced, and the most extensive operations carried on, by means of credit or confidence; but this is an obvious mistake. Wealth cannot be produced, nor can any sort of industrious undertaking be entered upon or completed, without the aid of labor and capital; and all that credit does, or can do, is, by facilitating the transfer of capital from one individual to another, to bring it into the hands of those who, it is most probable, will employ it to the greatest advantage. A few remarks will render this apparent.

It is plain that, to whatever extent the power of the borrower of a quantity of produce, or a sum of money, to extend this business, may be increased, that of the lender must be equally diminished. The same proportion of capital cannot be employed by two individuals at the same time. If A transfers his capital to B, he necessarily, by so doing, deprives himself of a power or capacity of production which B acquires. It is most probable, indeed, that this capital will be more productively employed by B than by A; for the fact of A having lent it shows that he either had no means of employing it advantageously or was disinclined to take the trouble; while the fact of B having borrowed it shows that he conceives he can advantageously employ it or that he can invest it so as to make it yield an interest to the lender and a profit for himself. It is obvious, however, that except in so far as credit may thus bring capital into the possession of those who, it may be fairly presumed, will employ it most beneficially, it can contribute nothing to the increase of wealth.

The most common method of making a loan is by selling commodities on credit, or on condition that they shall be paid at some future period. The price is increased proportionally to the length of credit given; and if any doubt be entertained with respect to the punctuality or solvency of the buyer, a further sum is added to the

[1] Adapted from *Principles of Political Economy* (1843), pp. 121–25.

price in order to cover the risk that the seller or lender runs of not recovering the price, or of not recovering it at the stipulated period. This is the usual method of transacting business where capital is abundant and confidence general.

When produce is sold in the way now described, it is usual for the buyers to give bills to the sellers for the price, payable at the expiration of the credit; and it is in the effects growing out of the negotiation of these bills that much of that *magical* influence that has sometimes been ascribed to credit is believed to consist. Suppose, to illustrate this, that a paper-maker, A, sells to a printer, B, a quantity of paper, and that he gets his bill for the sum, payable at twelve months after date: B could not have entered into the transaction had he been obliged to pay ready money; but A, notwithstanding he has occasion for the money, is enabled, by the facility of negotiating or discounting bills, to give the requisite credit without disabling himself from prosecuting his business. In a case like this both parties are said to be supported by credit; and as cases of this sort are exceedingly common, it is contended that half the business of the country is really carried on by its means. All, however, that such statements really amount to is that a large proportion of those engaged in industrial undertakings do not employ their own capital, but that of others. In the case in question, the printer employs the capital of the paper-maker, and the latter employs that of the banker or broker who discounted the bill. This person had, most likely, the amount in spare cash lying beside him, which he might not well know what use to make of; but the individual into whose hands it has now come will immediately apply it to useful purposes, or to the purchase of the materials, or the payment of the wages of the workmen employed in his establishment. It is next to certain, therefore, that the transaction will be advantageous. But still it is essential to bear in mind that it will be so, not because credit is of itself a means of production, or because it can give birth to capital not already in existence, but because, through its agency, capital finds its way into those channels in which it has the best chance of being profitably employed.

The following extract from the evidence of Mr. Ricardo before the committee appointed by the House of Lords in 1819, to inquire into the expediency of the resumption of cash payments by the Bank of England, sets the principle we have been endeavoring to establish in a very clear point of view:

"Do you not know," Mr. Ricardo was asked, "that when there is a great demand for manufactures, the very credit which that circumstance creates enables the manufacturer to make a more extended use of his capital in the production of manufactures?" To this Mr. Ricardo answered, "I have no notion of credit being at all effectual in the production of commodities; commodities can only be produced by labor, machinery, and raw materials; and if these are to be employed in one place, they must necessarily be withdrawn from another. Credit is the means, which is alternately transferred from one to another, to make use of capital actually existing; it does not create capital; it determines only by whom that capital shall be employed; the removal of capital from one employment to another may often be very advantageous, and it may also be very injurious."

Mr. Ricardo was then asked, "May not a man get credit from a bank on the security of his capital which is profitably employed, whether invested in stock or land; and may he not, by means of that credit, purchase or create an additional quantity of machinery and raw materials, and pay an additional number of labourers, without dislodging capital from any existing employment in the country?" To this Mr. Ricardo answered, "Impossible! an individual can purchase machinery, etc., with credit; he can never create them. If he purchase, it is always of someone else; and, consequently, he displaces some other from the employment of capital."

12. THE MONETARY FUNCTION OF COMMERCIAL CREDIT[1]

By J. LAURENCE LAUGHLIN

Credit being in its simplest form a transfer of goods involving an obligation to return an equivalent in the future, we find in practice, however, that credit has in modern society developed instruments that are akin to money. Clearly enough, it does not act as a standard or common denominator. Its relation to the subject of money is to be found in the fact that society has in the forms of credit created a medium of exchange. Credit is the natural result of the premium always existing in business transactions to evolve a means of avoiding the risk and loss attending the actual transfer of the valuable standard; and it remains in use because transactions involving futu-

[1] Adapted from *Principles of Money*, pp. 82–85. (Charles Scribner's Sons, 1903.)

rity are thereby rendered possible and legitimate, to the immense advantage of commerce and industry. It is the evolution of a refined system of barter, rendered necessary by division of labor, the interdependence of industries, and the introduction of the time element.

The reason for the common belief that credit is based upon, and limited by, money is evidently to be found in the fact that all the evidences of credit transactions (such as notes, bills, checks, book credits) are drawn in terms of money; and that every business man assumes that his checks, or deposits account, or bills payable can be liquidated in money. If this were not so, he reasons, what would be their value to him in preparing to meet his own obligations? Paradoxical as it may seem, it is absolutely true that the mass of obligations could not possibly be, and were never really intended to be, liquidated in actual money. The fundamental truth is that the quantity (and value) of goods vastly overpasses the quantity (and value) of money; only a portion of the wealth of any community is, or ought to be, invested in its machinery of exchange. Provided that exchanges go on efficiently, the less of the country's wealth invested in this unproductive form the better. To speak as if a country were better off the greater the amount invested in its money machinery is to glorify the fact of its backward commercial growth; such an attitude would imply that a farmer could turn the soil better with a plow decorated with costly precious stones when one worth one one-thousandth as much would do the work quite as well. Inasmuch as all the population of a walled city do not wish to pass through its gates at once, a few gates suffice at any one time; so likewise not all of the mass of goods are seeking exchange at the same moment. As a consequence, the amount of money needed for exchange is, of course, far less than the total amount of goods. This is an economic commonplace.

All transactions cannot be liquidated at once in actual money; and, if it were possible, that is not a process which would most economically satisfy our daily wants. The best machinery of exchange is that which enables our own product to be most easily exchanged for the various goods which we desire; and money is but one of the means to the end. Credit is, also, an important instrument, or medium, of exchange. Certain reserves of money are necessary parts of the system, to provide against lack of confidence, general distrust,

and unreasoning human nature. As McLeod says: "Though in every system of credit there must be an ultimate reserve of specie, yet that ultimate reserve does not bear a constant, fixed ratio to the quantity of credit: but it mainly depends on the organization of credit: the more highly organized the system of credit is, the less is the requisite amount of the ultimate reserve of specie. Any amount of credit may be created and extinguished without any relation to the quantity of money."

III

INSTRUMENTS OF COMMERCIAL CREDIT

Introduction

Credit instruments probably originated soon after, if not simultaneously with, the development of credit itself, for an obligation entered into upon a credit basis would appear to require almost as a matter of necessity some evidence of the transaction involved. It is of course possible that credit operations may have at one time been extensively conducted without the use of written proof thereof; but there appears to be no historical evidence that such informal credit extension was ever the rule rather than the exception. Without doubt there were always many "character" loans, however, where one's word was as good as his bond, even as now there are between friends informal loans where no note is required. But in all probability some form of note or bill of exchange was generally used almost from the very beginning. There is abundant proof that these instruments were well developed among the Greeks and Romans and even among the Assyrians and Babylonians.

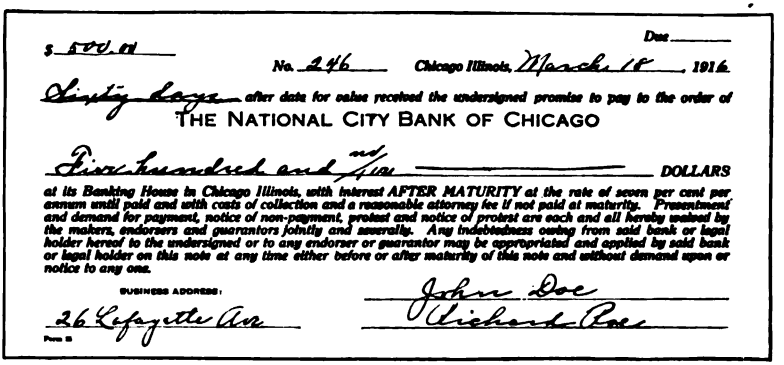
At the present time a great part of credit is evidenced merely by entries in account books, and is known as book credit. Such informal credit extension is quite as significant as any from one standpoint, but from another point of view it is much less important than formal credit. Where a note or bill of exchange arises from a credit operation, we have at hand tangible legal instruments that may be used in a modified way as media of exchange, while in the bank check we have an instrument that in the modern business world has largely superseded the use of money itself in the making of exchanges. Bonds and stocks arising from investment transactions also serve to some extent in lieu of money; but it is only in the instruments of commercial credit that we have a generally acceptable substitute for money.

The adaptability of these instruments to serve as media of exchange has long been recognized, and there has been gradually developed a definite body of law governing their use. The fundamental principle which has given them the wide circulation they now

possess is known as negotiability, whereby one of these instruments may come to have a good title even though there was originally a flaw in it; that is to say, when it gets into the hands of a third party it may, under certain conditions, be a better instrument than when in the possession of the original holder. This principle, so far as our own legal history is concerned, was developed in the English courts to meet the needs of mediaeval trade. In due time it was extended to America, where, in the various states, it developed along similar lines, though with so many local variations that the bar association eventually undertook the securing of identical legislation on the subject in all the states. A uniform negotiable instruments law, however, has only recently been secured.

13. TYPES OF COMMERCIAL CREDIT INSTRUMENTS

A promissory note is an unconditional written promise by X (the maker) agreeing to pay, either on demand or at a definite future date, a sum of money to Y (the payee) or to Y's order or to bearer. It may or may not designate the place at which payment is to be made. Promissory notes may be issued by institutions and governments as well as by individuals. Bank notes, United States notes, certificates of deposit, etc., are forms of the promissory note.



Due _____

$ 500.00 No. 246 Chicago Illinois, March 10 1916

Sixty days after date for value received the undersigned promise to pay to the order of

THE NATIONAL CITY BANK OF CHICAGO

Five hundred and no/100 _____ DOLLARS

at its Banking House in Chicago Illinois, with interest AFTER MATURITY at the rate of seven per cent per annum until paid and with costs of collection and a reasonable attorney fee if not paid at maturity. Presentment and demand for payment, notice of non-payment, protest and notice of protest are each and all hereby waived by the makers, endorsers and guarantors jointly and severally. Any indebtedness owing from said bank or legal holder hereof to the undersigned or to any endorser or guarantor may be appropriated and applied by said bank or legal holder on this note at any time either before or after maturity of this note and without demand upon or notice to any one.

BUSINESS ADDRESS:

26 Lafayette Ave

John Doe

Richard Roe

Form B

To indorse a note the payee writes his name across the back of the instrument. This act makes the payee, like the maker, responsible for the payment of the note. Notes may also be indorsed by third parties, thereby adding to the number of those responsible for the payment of the note. Notes which show only one person responsible for the payment are called single-name paper. Those which have two or more signers are called double-name or three-name paper.

A bill of exchange is an unconditional written order, signed by X (the person giving the order—the drawer), ordering Z (the drawee) to pay, either on demand or at a definite future date, a sum of money to Y (the payee) or to Y's order or to bearer. The drawee may indicate his willingness to honor it by signing his name to the word "accepted" written across the face of the bill.

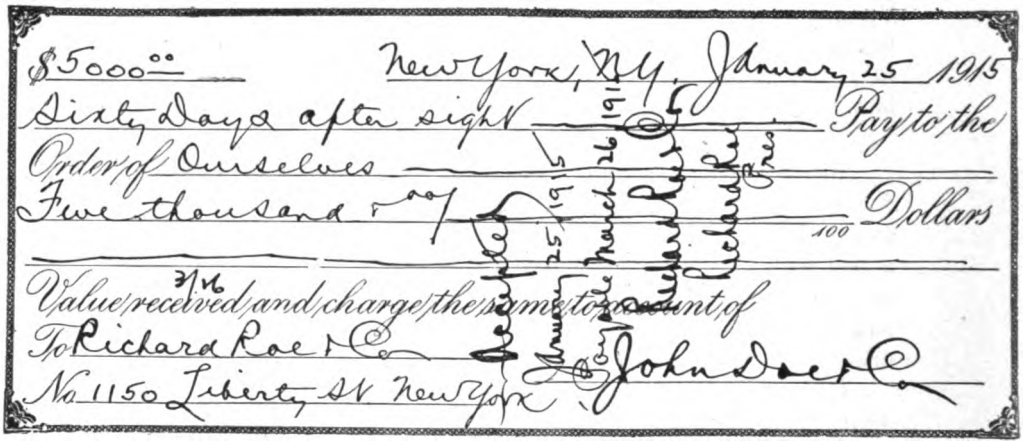
Bills of exchange are of two kinds, foreign and domestic, or inland. A foreign bill is legally defined as one the drawer and drawee of which live in different countries or different states, while a domestic bill is one both parties to which live within the same state. Business custom, however, warrants our using the term domestic bill for all bills when both parties live in the United States, regardless of state lines.

There is likely to be some confusion as to when to use the term draft. Draft and bill of exchange are often used interchangeably. For instance, we speak of drafts on London and bills of exchange on London, and we say New York exchange and drafts on New York. In the business world, however, there is a growing custom of using the term *draft* when speaking of domestic transactions, while one more frequently hears the term *bill of exchange* in connection with foreign transactions.

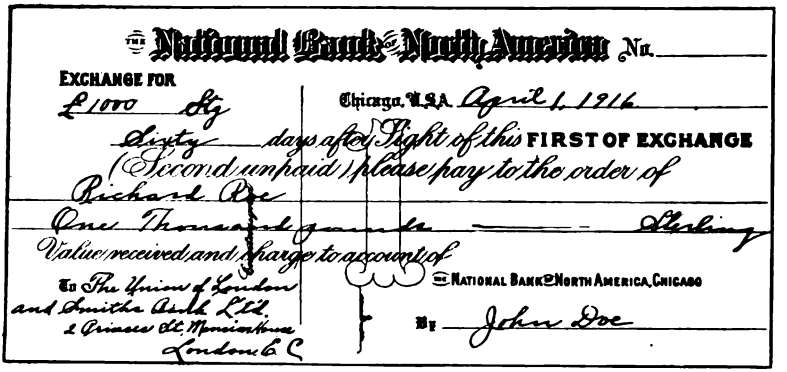
Bills of exchange may be classified according to whether or not the parties to the order are bankers. A banker's draft is an order drawn by one bank and payable by another. It is not necessary, however, that the party to whom it is payable be a bank. In the case of individual or trade bills of exchange the payee may be the drawer himself as well as a third party. The payee may also be a bank. The second party, the drawee, may likewise be a bank, in which case the bill of exchange is in the form of the familiar check drawn by a person against his deposit account in a bank.

Bills may be classified according to whether or not they arise out of actual commercial transactions. Hence we have bankers' or finance bills, trade or commercial bills, and accommodation bills. Bankers' bills are used merely as a means of making payments and transferring balances and are secured by the reputation of the bank that draws them. A commercial bill arises out of an actual sale of goods and, is secured, not only by the general responsibility of the drawer, but also by the goods which have been exchanged for the purpose of sale. Accommodation bills are bills which do not arise out of any business transaction already concluded, though there may be an intention to purchase goods with the funds procured.

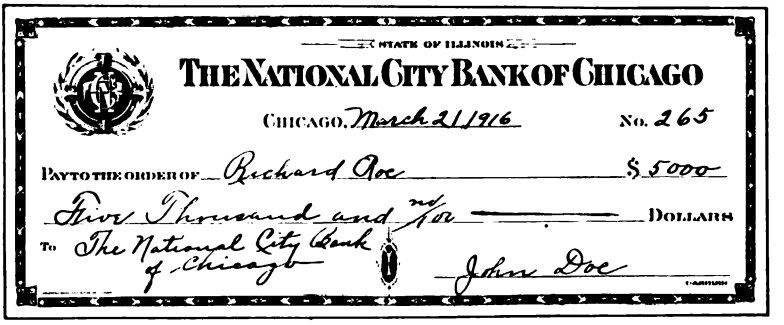
AN ACCEPTED TRADE DRAFT


$5000.00
New York, N.Y. January 25 1915
Sixty Days after sight
Pay to the
Order of Ourselves
Five thousand 00/
Dollars
Value received and charge the same to account of
To Richard Roe & Co
No. 1150 Liberty St New York
John Doe & Co

A FOREIGN BILL OF EXCHANGE

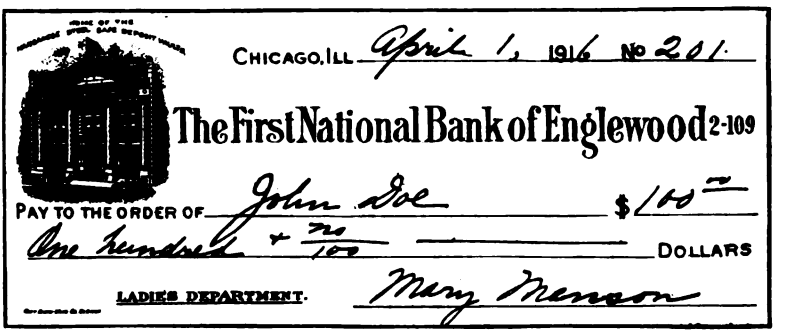

The National Bank of North America No.
EXCHANGE FOR
£1000 Stg
Chicago, U.S.A. April 1, 1916
Sixty days after Sight of this FIRST OF EXCHANGE
(Second unpaid) please pay to the order of
Richard Roe
One Thousand pounds Sterling
Value received and charge to account of
To The Union of London and Smiths Bank Ltd.
2 Princes St. Mansion House
London E.C.
The National Bank of North America, Chicago
By John Doe

CASHIER'S CHECK



In order to illustrate the use of these instruments, suppose that X has bought a bill of goods from Y. X may pay in one of several ways: (1) He may "pay cash," and this may be in bank notes, United States notes, gold certificates, etc. (2) He may give Y a check on his (X's) bank. (3) He may draw and deliver a bill of exchange on Z payable to Y or Y's order. In such a case Z is presumably a debtor to X. (4) He may give Y a promissory note. This

PERSONAL BANK CHECK


CHICAGO, ILL. April 1, 1916 No 201
The First National Bank of Englewood 2-109
PAY TO THE ORDER OF John Doe $100
One hundred + no/100 DOLLARS
LADIES DEPARTMENT
Mary Benson

will merely defer actual payment. (5) He may "accept" a bill of exchange which Y has drawn upon him. This also merely defers actual payment. (6) He may transfer to Y some check or promissory note or bill of exchange which some other person (say V) has drawn to X's order or to bearer. (7) He may buy from his banker a banker's draft drawn (on some other banker) in favor of Y. (8) He may buy from his banker a cashier's check.

14. ORIGIN AND DEVELOPMENT OF MERCANTILE INSTRUMENTS[1]

By WILLIAM GREEN HALE

The law governing negotiable instruments had its inception in the customs of the mercantile world—indeed, these instruments were born of the necessities and needs of merchants. Bills, notes, and checks are thus frequently referred to as commercial paper, or mercantile specialties, and the law pertaining to such instruments as the Law Merchant.

[1] Adapted from *Law of Negotiable Instruments*, pp. 1-2. (Blackstone Institute, 1915.)

There is much doubt as to the exact time and place of the origin of commercial paper. This much seems quite certain: that bills of exchange were used to some extent by the merchants of Italy as early as the thirteenth century and, not a great while thereafter, found their way into England, where they were first used by the English merchants in their dealings with the merchants on the continent of Europe. Thus the foreign bill of exchange was the first mercantile specialty to become known to the English law.

The inland bill of exchange and promissory note followed rapidly in the wake of the foreign bill of exchange. And by the first of the seventeenth century all three of these instruments were well known to the merchants of England, and were coming to be made the subjects of litigation. It was about this time also, it is said, that the custom of making such instruments payable to order or bearer, and thus negotiable in form, took its rise. Down to the time of Lord Mansfield, in 1756, however, the rules that governed in the controversies which arose over bills and notes were in a more or less chaotic condition. He it was—since termed the "father of the Law Merchant"—who voiced and molded into the form of definite rules of law the numerous customs of the merchants with reference to such paper and made the Law Merchant a real part and parcel of the great body of the English Law.

15. THE DEVELOPMENT OF CREDIT INSTRUMENTS IN THE UNITED STATES[1]

By JOSEPH J. KLEIN

The use of commercial drafts played a very important rôle in the history of the American colonies. The draft was used when the drawer had a balance to his credit with some merchant, residing either in England or the colonies. There is no evidence, however, to show that the promissory note was used during the colonial period. Bank checks appear to have been unknown in colonial times, and there is no evidence to show that the few banks of the time did any discounting of bills of exchange. Checks were unknown to the colonists until the time of the Revolution.

In the period between 1789 and the Civil War we find the development of an extensive use of both drafts and promissory notes in mer-

[1] Adapted from an unpublished thesis on *The Development of Mercantile Instruments of Credit in the United States.*

cantile transactions. During this period also banking became well developed and differentiated into banks of discount and banks of circulation. The use of the check became quite generally known in the cities, although it was not until after the Civil War that deposit currency came to be the most important instrument of exchange that we possess.

16. THE USE OF CHECKS IN THE UNITED STATES[1]

By DAVID KINLEY

1. The volume of business that can be done by credit paper depends on several circumstances. Obviously, in the first place, it depends upon the banking facilities of the country. If the banks are widely distributed, if they are willing to deal in transactions small enough to be within the reach of large numbers of people, many more transactions will be settled through them than would otherwise be the case. This fact undoubtedly explains in large measure the development of what may be called the "banking habit" among the people of the United States. Undoubtedly our people pay by check much more commonly and much more largely than people of any other country.

In the next place, the density of population is, of course, an important factor in the growth of credit exchanges. A larger volume of business is settled by bank paper in a commercial center than in an agricultural community, even though the proportion of total business thus settled may not be larger.

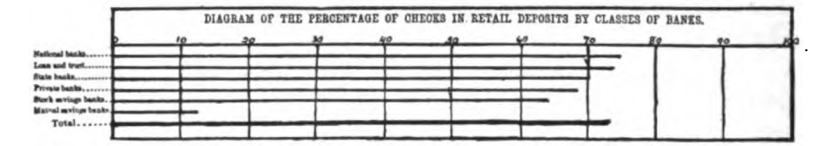
Finally, the general education and intelligence of the mass of the people is an important factor. Men do not use banks unless they have confidence in them, and they have come to be regarded as a settled part of the ordinary commercial mechanism of the community.

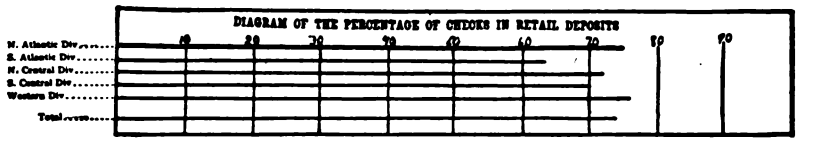
2. It is very clear that a large proportion of the business of the country, even in the retail trade, is done by means of credit instruments. We are justified in concluding that 50 or 60 per cent of the retail trade of the country is settled in this way. Over 90 per cent of the wholesale trade of the country is done with checks and other credit documents. We may therefore safely accept an average of 80 to 85 per cent as the probable percentage of business of this country transacted by check.

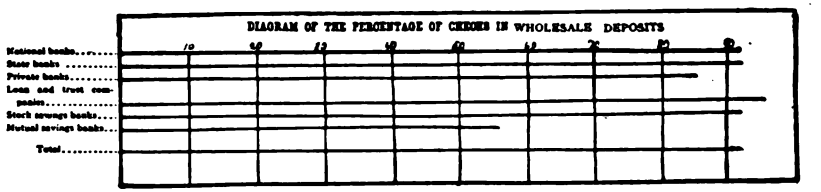
[1] Adapted from *The Use of Credit Instruments in the United States.* (National Monetary Commission, 1910.)

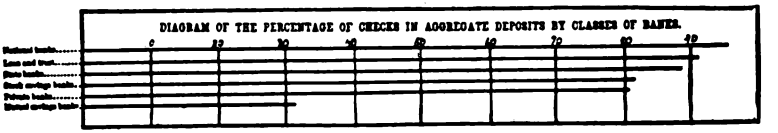
3. Such evidence as there is seems to indicate that payment by check has shown an increase during the past few years:

a) In the first place, the returns of our reports show a larger percentage in retail trade.









b) The prosperity of the farmers in the Central West has enabled many to carry bank accounts who fifteen years ago could not carry balances.

c) The third evidence is found in the growth of the number of small banks, especially in the country districts. Since national banks have been permitted to establish themselves with a capital of $25,000 their number has increased from 3,617 to 6,926.

d) The appearance of a considerable portion of checks in the deposits of mutual savings banks is also, to some degree, significant.

Of course the credit documents received in the deposits of these banks may be to a considerable extent money orders. Nevertheless their deposits show a certain use of credit paper by the patrons of the banks.

We cannot expect any social movement to continue steadily in one direction for an indefinite time. Such evidence as inquiries of this character furnish seems to show that there is a certain ebb and flow in the proportion of checks used in business payments.

The volume of credit transactions very likely tends to increase as population and business grow. It does not increase uniformly, however, but by periodic movements. That is to say, the rate of increase of credit transactions, as compared with the whole volume of business, grows, as it were, by jerks and at a decreasing rate.

One point needs to be carefully borne in mind: However great the volume of credit exchanges, however extensive the use of credit may become in a community, they can never fully displace sales for direct money payment.

4. The amount of money released by our credit transactions is not equal in amount to the volume of credit instruments, for there must always be enough to settle the uncanceled balances called for in money from day to day. The amount of money displaced is the difference between the amount that would be needed in a purely money régime and the amount needed to pay the uncanceled balances of the credit transactions. It is important to note that an increase in the volume of credit transactions does not necessarily mean that we must get a proportionate increase in our reserve of money. Every refinement of the credit mechanism makes it possible to do a larger volume of business on the same reserve.

No one can say, therefore, with definiteness what is the amount of money released if 75 or 80 per cent of our business transactions are settled by means of credit paper. This is a matter in which the long experience of practical bankers is the only safe guide, because the amount in question is changing from day to day as the conditions change. No simple rule about it can be laid down. Certainly, however, it is not 75 per cent of the money which would be necessary if all transactions were settled with money. It is an amount varying from one-third to one-fifth of uncanceled credit balances, according to the perfection of the banking machinery, the state of credit, prosperity, and public confidence.

17. THE LAW OF NEGOTIABLE INSTRUMENTS[1]

By D. CURTIS GANO

Definition.—A negotiable instrument may be defined as a written instrument or evidence of the debt which may be transferred from one person to another by indorsement or delivery so that the legal title becomes vested in the transferee.

Principal characteristic.—The principal characteristic of a negotiable instrument, and that which makes it pass freely as a substitute for money, is that in the hands of a third party who purchases it in good faith and for value before it is due, it is enforceable, while the original holder, perhaps, could not enforce it for the reason that the party who made the instrument has a good defense or counterclaim. As soon, however, as an innocent purchaser comes into possession of it for value, he cannot be prevented from collecting because of any defenses existing between the original parties. In other contracts the purchaser acquires only the right of the party from whom he buys, but in the case of negotiable paper he may acquire a better title than the original holder.

Essential conditions.—The question arises as to what conditions are essential to constitute a contract a negotiable instrument. In general we find that no exact form need be followed, although custom has prescribed forms that are very generally used, but it is required that a negotiable instrument must be: (1) in writing, (2) properly signed, (3) negotiable in form, (4) payable in money only, (5) certain in amount, (6) payable to a designated payee, (7) payable absolutely, (8) payable at a time that is certain. A few words of elaboration on each of these points is necessary.

1. No oral contract could be negotiable. By a written contract we mean one in either writing or printing, and the writing may be executed with any substance, as ink or pencil. The whole instrument must be written. No essential part, as the names of the parties, the amount, or the date, can be omitted from the writing.

2. It is usual that the signature be made by writing the name of the signer, but it is not necessary, as he may affix his mark or any other character intended to be a signature. It is usual to place the signature at the close of the instrument, but if it is shown that it is meant for a signature, it may be placed on any other part.

[1] Adapted from Gano's *Commercial Law*, pp. 116–53. (Copyright 1904, 1913. By permission of American Book Co., publishers.)

3. The instrument must be payable to "Order" or "Bearer." If made payable to a particular person or persons only, it is not a negotiable instrument, and falls under the rules governing a simple contract. In other words, the intent of the party making the instrument to execute a negotiable paper must appear by some express words showing such a purpose.

4. The very reason it must be payable in money is that if it were payable in any other commodity the amount could not be definite and certain. If payable in a given number of bushels of wheat, the person taking it would be obliged to determine the value of wheat at that place; the value at another place might be materially different. By the term "money" is meant the legal tender of the country; that is, a note payable in Spanish money is not a negotiable instrument in the United States.

5. The sum payable is considered fixed and certain if it is a given amount with interest, or payable by stated installments or with exchange (the bank's charges), or with the costs of collection in case payment is not made at maturity.

6. There must be no uncertainty as to the person to whom the money is to be paid. The instrument must be made payable to a certain person, or his order, or to the bearer. It need not name the payee, but it must be payable to a person or persons who can be definitely ascertained at the time of payment. If payable to A or B, it is not a negotiable instrument under the law merchant, but it has been so rendered by statute in some states.

7. If the instrument is so drawn that any condition may arise which would render it of no effect, it is not a negotiable paper. Consequently, a promise to pay a certain sum out of a designated fund is not negotiable, and this is the case even though the fund exists at the time or the condition that would nullify the contract never arises.

8. But the promise is not made conditional by designating a place of payment in the instrument. Not only must the amount be payable absolutely, but the time of payment must be definite and fixed. That is, the date of payment must be definitely stated, or it must be on or before a certain definite date, or at a certain time after the happening of an event that is sure to occur. A note payable a certain number of days after the death of a person is negotiable, the date being certain because the time is sure to arrive. But the contingent event must be certain to occur or the promise will not be absolute.

Negotiation.—By negotiation we mean the transfer of a negotiable instrument from one person to another in such a way that the transferee is the legal holder thereof and vested with all of the rights of the original holder.

Indorsement.—Negotiable paper is transferred by indorsement, that is, by the payee signing his name on the back with directions as to the party to whom payment shall be made. When an instrument is made payable to a certain person or bearer, an indorsement is not necessary to give a good title to the transferee, delivery being sufficient, but if it is payable to a certain person or order, the indorsement is necessary to give title.

Blank and full indorsement.—For the purpose of transfer, the indorsement must be made by the party to whom the instrument is payable.

Indorsement may be made in *full* or in *blank*. In the former case the payee writes "Pay to the order of X" and signs his name. This is also called a *special indorsement*. To indorse in *blank* all that is necessary is for the payee to write his name. This is equivalent to writing "Pay to bearer." The instrument is payable to anyone who holds it.

Obligation of indorser and drawer.—The obligation of an indorser to a transferee, like that of the drawer of a bill, is that the indorser will pay the instrument provided the maker does not, and also provided it is duly presented for payment and upon refusal is duly protested and notice of protest given the indorser. In domestic bills and notes the protest may be omitted and instead notice of non-payment may be given the indorser. It will be seen that the contract of the maker of a note or the acceptor of a bill is absolute. Each is liable in any event, but the contract of the indorser and of the drawee of a bill is conditional upon the failure of the maker or acceptor to pay upon proper protest and notice to him.

Indorsement without recourse.—If the indorser of a note wishes to avoid any personal liability, he may indorse "without recourse" and sign his name. By the indorsement "without recourse" the indorser expressly stipulates that he will not be liable if the maker does not pay, but he is held to impliedly warrant that the signatures of the maker and all prior indorsers are genuine, that is, that they are not forgeries. The intent and purpose of such indorsement is to pass title to the instrument.

Indorsement: how made.—The indorsement must be on the instrument itself or on a paper attached to it. The indorsement must relate to the entire instrument; a part cannot be transferred by indorsement, or a part to one party and the remainder to another. Any writing intended to transfer the title to the instrument will be construed as an indorsement.

Presentment and demand.—As has been said, to fix the liability of the drawer or indorser, the first step is presentment to the drawee or maker and demand. Bills of exchange payable a certain time after sight are presented for acceptance; notes, checks, and bills payable on demand or sight are presented for payment. Presentment consists in exhibiting the instrument to the payer or handing it to him, while demand is a request to either accept or pay it as the case may be. If the paper is payable at a bank the mere fact that at the time of maturity the paper is at the bank at which it is payable is sufficient presentment and demand, provided the bank has knowledge of the fact. Presentment and demand must always be made at the place designated in the instrument.

In case there is no designated place of payment it is said that the paper is payable generally. This means that it is payable at the place of business or residence of the maker of the note or acceptor of the draft, and when he has a known place of business that should have preference over his residence. If the maker or acceptor has neither a known residence nor a place of business, the holder need only be present with the paper and ready to receive payment at the place where the contract was made.

Time.—Presentment for payment must be made on the day on which the instrument falls due, unless some "inevitable accident" or other legal obstacle prevents such presentment. The fact that both the holder and indorser know that the note will not be paid when due and that the maker is dead and the estate insolvent does not relieve the holder from his obligation to make presentment and give notice of dishonor.

Days of grace.—Drafts, bills of exchange, and promissory notes formerly had days of grace, that is, three days were added to the time stated in which the instrument should become due. The purpose of this was to give the payer in the early days of slow transportation an opportunity to arrange for payment. A note at thirty days drawn June 10 would not be payable until July 13; but days of grace have

been abolished by statute in most of the states and an instrument matures on the date fixed. If given a number of days after date, the day on which the instrument is drawn is excluded; thus, a note dated January 10, payable thirty days after date, is due February 9. If the date of maturity is Sunday or a legal holiday, the instrument is payable on the next succeeding business day. In the states in which days of grace are yet allowed, if the last day of grace is a holiday or Sunday, the instrument is payable on the preceding day. But when the time is reckoned by the month, as it is when the instrument is made payable one or more months after date, the note falls due on the corresponding date of the month in which it is due. Thus a note dated January 31, 1903, due one month after date, would mature February 28, 1903, where no grace is allowed, and if dated February 28, it would be due March 28. Not only must the presentment for payment be made on the right day, but it must be made at a reasonable time on that day. If presented at a bank, it must be during banking hours. In other cases the time must be at a reasonable hour. The presentment must be made by the holder or his duly authorized agent, upon the proper person, who is the maker or the acceptor, or, if he is dead, his personal representative.

Notice of dishonor.—After the payment has been refused and the instrument dishonored, notice of such dishonor must be given to the drawer of a bill of exchange and to each indorser if a bill or note, and any drawer or indorser to whom such notice is not given is discharged. This notice under the law merchant must be given within a reasonable time, but by the negotiable-instrument law adopted in many of the states it is expressly stipulated when the notice is to be given. If the parties reside in the same place, it must be given the following day. If they reside in different places, and notice is sent by mail, it must be deposited in the post-office so as to go the day following the dishonor; if given otherwise than through the mail, it must be done in time to be received as soon as the mailed notice would have been. The notice may be given by the holder or his agent or by any party who may have to pay the debt and who is entitled to be reimbursed.

Notice to indorsers.—When there are several indorsers the last indorser can look to the previous one, or in fact to anyone who has indorsed before him, as well as to the maker or acceptor. Therefore it often happens that the holder upon dishonor of the instrument gives notice to the last indorser, to whom he will look to be reimbursed in case he is obliged to pay the instrument. The notice of

dishonor may be either oral or written, and can be either delivered personally or sent through the mail. Some cases hold that the postal service cannot be used when the parties reside in the same town, but by statute in New York State the post-office can be used even in that case.

Waiver.—Notice may be waived, and frequently the indorser adds "protest waived," the effect of this being to waive presentment and notice of dishonor as well as formal protest.

Protest.—Protest is a formal declaration in writing and under seal, of an officer called a notary public, certifying to the demand and dishonor. Protest of foreign bills of exchange is necessary, but it is not required in the case of notes, checks, and inland bills, although it is often employed in giving notice of their dishonor. The notary makes the presentment and demand, and upon refusal issues a certificate, stating that presentment and demand has been made and judgment refused, and further that notice has been sent to the maker and all indorsers of the note.

Irregular indorser.—Frequently there appears on the back of a bill or note the name of a person who is not a party to it and to whom it was never indorsed. Such a person is known as an irregular or anomalous indorser. The object of such an indorsement is to give additional security to the payee. Different states hold differently as to the liability of such a party, but the rule commonly followed seems to be that he is liable as an ordinary indorser. Such indorsements are frequently used when the payee of a note wishes to get it discounted at a bank, that is, to get the money on it. The bank requires an indorser, and the payee gets a friend to indorse the note. The irregular indorser is liable to the bank the same as any other indorser.

The holder or payee.—We have yet to consider the position and rights of the holder or payee of the instrument. Whether he be the original payee or an indorser, he is the party in whose hands the instrument rests and who has the right to the money which it represents. We have already learned that negotiable instruments have a distinguishing characteristic not possessed by any other contract, which is that when they have passed into certain parties' hands under particular conditions they are valid and enforceable, although not valid between the original parties to them. The rule is generally said to be that a negotiable instrument in the hands of an innocent purchaser for value and before maturity is not subject to any of the defenses

that might be interposed to it between the original parties, but this is not true of certain absolute defenses which affect the very existence of the contract, and which we will consider later. To bring the instrument under the rule, the holder must be an innocent purchaser for value, or, as it is often expressed, a "bona fide holder for value" or a "holder in due course." The term "bona fide holder" means a holder who has acquired the instrument in good faith, without knowledge or notice of any defenses or defects that could be set up against any prior holder. To constitute notice, the holder must have had actual knowledge of the defect, or his carelessness must have been so great as to amount to "bad faith."

Defenses: general statement.—It can be stated as a general proposition that a bona fide purchaser before maturity and for value takes title free from all defects and defenses, or, as is often stated, "free from equities," except such as affect the very existence of the instrument and which are said to constitute absolute defenses. The absolute defenses are either cases in which no valid contract ever existed or where the contract is declared illegal and void by statute.

No delivery.—The instrument may never have been delivered. It is considered by the law merchant to be a sufficient delivery to hold the maker or acceptor if it is handed over by the party himself or his agent either with or without authority, or if it gets into circulation through the negligence of the maker. The question is, Did the maker deliver the instrument or was his actor representation responsible for its coming into the hands of bona fide holders? If this be true, he must suffer, although it was not his intention to deliver the instrument. On the other hand, if he has been deprived of the possession of the paper by fraud or theft, he cannot be compelled to pay the amount named to anyone, as in this case the instrument was never delivered and no contract existed. If in the making of the instrument there was such fraud as would vitiate a contract, then no contract exists, and the maker or acceptor cannot be held.

Alteration or forgery.—Another failure of contract arises when there has been a material alteration or forgery, for in these instances the minds of the parties have not met in the contract. To alter the terms of a negotiable instrument without authority after it has been signed destroys its validity even in the hands of a bona fide holder. Any alteration of a negotiable instrument which changes its legal effect is a material alteration. There must be an intent to make the alteration, and it must be made, of course, without the consent of

the maker or acceptor of the instrument. The alteration must also be made by a party to the instrument or one in lawful possession of it. The holder cannot be prejudiced or injured by the act of a stranger without his consent. It will be seen from the foregoing paragraphs that when a signature to a negotiable instrument is forged the party whose name is so used cannot be held.

Want of capacity to contract.—The contract represented by the instrument may not be binding, for the reason that the party or parties did not have the capacity to contract; as, the note or bill of an infant or lunatic. Still, if a valid negotiable instrument comes into the hands of an infant, he may, if of full mental capacity, transfer it to another. The mere fact that a contract is illegal is not an absolute defense to a negotiable instrument in the hands of a bona fide holder; but if the contract is expressly made illegal and void by statute an absolute defense is created.

Equities.—Other defenses than those described as absolute are termed "equities," and are valid defenses between the original parties to the instruments, but, as we have learned, cannot be set up against bona fide holders. Lack of consideration is a good defense as between the original parties, but not as against a bona fide holder for value. It is an equity and not an absolute defense. The fact that there is an absolute defense to an instrument does not discharge all of the parties to it or through whose hands it has passed. As we have seen, such defense exonerates the maker or acceptor of a negotiable instrument, but it does not relieve the liability of the indorser, because every person who negotiates such an instrument warrants that it is genuine, that he has a good title to it, and that all prior parties have capacity to contract.

18. UNIFORM NEGOTIABLE INSTRUMENTS LAW[1]

BY WILLIAM GREEN HALE

As early as 1890 a movement was started in the United States to bring about a codification of the law merchant in the several states with a special view to securing uniformity in the different jurisdictions. Following the lead of New York, commissioners were appointed in other states, and in 1895 at a meeting of these commissioners a Committee on Commercial Law was instructed to have prepared a codification of the law relating to bills and notes. The draft was forthwith

[1] Adapted from *Law of Negotiable Instruments*, pp. 9–11. (Blackstone Institute, 1915.)

prepared and submitted to the conference which met at Saratoga in August, 1896, and, with some amendments, was adopted, and is known as "The Negotiable Instruments Law."

Following this, steps were at once taken to secure the adoption of the bill, thus approved, in every state in the Union. Again the state of New York took the lead by passing the law in 1897. Since then this bill has become a law in forty-three states, Alaska, the District of Columbia, Hawaii, and the Philippine Islands; in a few instances, however, with more or less important modifications.

IV

PRINCIPLES OF "COMMERCIAL" BANKING

Introduction

As has been indicated in chapter ii above, credit in its various forms has come to play so important a rôle in the modern business world that present-day economy is often called a credit economy. Within this great and complicated credit structure banking institutions occupy a position of unique importance. In fact, banks are often called credit institutions, or manufactories of credit, because they create credit instruments that are used as currency quite as are the ordinary media of exchange. While, as we shall presently find, this is a more or less narrow view of the relations of banking to business in general, it is none the less true that banking is vitally related to the entire system of credit that has been developed.

In our study of banking we are to consider first the so-called commercial bank. It is necessary to say *so-called* commercial bank, or to place the word *commercial* in quotation marks, for the reason that much of the business performed by the banks thus designated is really of an investment nature. A commercial bank is generally defined as an institution which exchanges present for future rights, that is, which gives an individual the right to receive funds now, or on demand, in exchange for the right of the bank to receive funds from the individual at some future date. Under this definition come all our national banks and a large proportion of the banks chartered under the laws of various states. When viewed from the standpoint of the uses to which the funds borrowed are put, however, these banks which thus create demand obligations are by no means strictly engaged in furthering commercial as distinguished from investment business. It was originally intended that the banks which created these demand obligations in exchange for short-time promises to pay would as a matter of course, and virtually of necessity, make loans for strictly commercial purposes, for unless they made commercial loans the obligations could not be liquidated within a short time. In practice, however, a large proportion of the loans made by "commercial" banks are for investment purposes, and out of this practice

have grown some of our most serious banking problems. It is highly important, therefore, at the very beginning of the study of banking to bear in mind that "commercial" banking is only partly commercial. The full significance of this fact, however, will not be apparent until the last chapter of the volume is reached. Our present purpose is merely to discuss the working of the "commercial" bank as a type of business institution.

An understanding of the practical operations and the functions of a bank may best be gained by approaching the subject through the medium of a bank's accounts or financial statement. The practical problems based on the statements given below serve to elucidate the everyday business transactions of a bank in dealing with its customers.

In connection with the economic functions that are performed by banks while conducting their daily operations, selections Nos. 21 and 22 discuss the subject from different points of view; together they serve to bring out clearly the essential nature of the commercial banking business as the economist sees it. However, from the point of view of the business man who is interested in banks from the standpoint of the use he may make of them, as distinguished from that of the economist who is interested in banking from the standpoint of its relation to the entire economic system, "commercial" banks are primarily loaning institutions to which he may look for assistance in carrying on his business. Similarly, from the standpoint of the banker himself, a bank is an institution out of which profits may be made, and its practical operations are conducted with this single end in mind. It is important to an understanding of the entire problem of banking that all these points of view be kept in mind; to consider the subject from any one angle alone is to get but a very inadequate grasp of its manifold nature.

From every point of view, however, the granting of loans is the most important part of banking. It is from this source that the banker derives his chief profits; it is in this way that the commercial bank chiefly serves the business world and justifies its right to exist from a business point of view; and it depends upon the character of the loans made whether the bank will be sound and safe and whether it properly fulfils its functions in relation to the economic system as a whole. It is in connection with the analysis of the loan items, moreover, that one may expect to find the investment operations, already noted, that are so commonly conducted in the name of

"commercial" banking. From the standpoint of the bank there are two classes of loans: those that are based on unsecured promissory notes or bills of exchange and those that are secured by the deposit of collateral. This classification, it should be observed, is from a purely banking viewpoint; collateral is or is not required, depending upon whether the banker believes that the borrower can reasonably be expected to pay the loan at maturity. It does not necessarily touch the question in which we are interested from the economic point of view; namely, the uses to which the borrowed funds are put and the consequent relation of banking to commercial and investment development.

A. Analysis of Banking Operations and Accounts

19. TYPICAL BANK STATEMENTS[1]

THE NATIONAL CITY BANK OF NEW YORK

RESOURCES

Loans and discounts		$191,425,216.92
U.S. bonds to secure circulation		2,562,750.00
U.S. bonds to secure circulation purchased with agreement to resell		1,000,000.00
U.S. and other bonds loaned		2,985,500.00
U.S. bonds on hand		173,318.94
Premium on U.S. bonds		4,615.00
Bonds, securities, etc		41,879,191.09
Capital set aside for South American branch		1,000,000.00
Stock of Federal Reserve Bank		1,000,000.00
Securities purchased with agreement to resell		75,000.00
Banking house, furniture, and fixtures		5,000,000.00
Due from banks and bankers		22,880,392.67
Country checks, other cash items, and fractional currency		114,730.52
Exchanges for Clearing-House		19,962,842.81
Checks on other banks in this city		1,252,563.50
Notes of other national banks		69,045.00
Federal Reserve notes		736,500.00
Lawful Reserve, viz.:		
Specie in vault	$69,914,025.86	
Legal-tender notes in vault	23,020,000.00	
Deposit in Federal Reserve Bank	27,670,346.07	
		120,604,371.93
Gold bullion		2,317,760.60
Redemption fund with U.S. Treasurer (5 per cent of circulation)		178,137.50
Due from U.S. Treasurer		42,000.00
Total		$415,263,936.48

[1] Report of condition at close of business, March 4, 1915.

LIABILITIES

Capital stock paid in		$ 25,000,000.00
Surplus fund		25,000,000.00
Undivided profits, less expenses and taxes paid		10,818,895.39
National bank notes outstanding		3,562,750.00
Due to banks and bankers	$163,766,269.56	
Dividends unpaid	890.00	
Individual deposits subject to check	155,948,413.70	
Demand certificates of deposit	1,683,864.63	
Certified checks	4,328,361.75	
Cashier's checks outstanding	2,399,974.57	
Time certificates of deposit	338,119.13	
		328,465,893.34
U.S. and other bonds borrowed		5,592,950.00
Bills payable, including obligations representing money borrowed		3,211,811.22
Acceptances based on imports and exports		7,226,858.59
Letters of credit		5,690,528.54
Other liabilities		694,249.40
Total		$415,263,936.48

TAYLOR DISCOUNT AND DEPOSIT BANK[1]

RESOURCES

Reserve fund:		
Cash, specie and notes	$13,605.70	
Due from approved reserve agents	56,217.04	
		$ 69,822.74
Nickels and cents		204.74
Assets held free, viz.:		
Bills discounted:		
Upon one name	$ 35,000.00	
Upon two or more names	245,744.20	
		280,744.20
Time loans with collateral		49,900.00
Loans on call with collateral		35,445.00
Loans on call upon two or more names		2,370.00
Loans secured by bonds and mortgages		90,831.00
Bonds, stocks, etc		166,308.00
Office building and lot		17,000.00
Furniture and fixtures		2,250.00
Overdrafts		31.70
Total		$714,900.18

[1] A state bank at Taylor, Lackawanna County, Pennsylvania, at close of business November 2, 1914.

LIABILITIES

Capital stock paid in		$ 50,000.00
Surplus fund		50,000.00
Undivided profits, less expenses and taxes paid		22,491.84
Individual deposits subject to check	$ 93,318.28	
Individual deposits, time	497,443.96	
Deposits, U.S. postal savings	132.21	
Certified checks	20.00	
Cashier's checks outstanding	954.70	
		591,869.15
Due to banks and trust companies, etc., not in reserve		539.19
Total		$714,900.18

20. ANALYSIS OF A BANK STATEMENT

As in any other business, the statement of a bank aims to show at a glance the financial condition of the institution. All of the debts or obligations owed by the bank are arrayed under the heading of Liabilities, and all the property of the bank together with the debts or obligations owing to the bank are grouped under Assets or Resources. In the typical statement published for the examination of the general public the form is usually condensed to ten or a dozen items, though in the fuller account submitted periodically to the Comptroller of the Currency these are subdivided into more than a score of items on either side.

The liabilities of a bank are of two classes: those to the stockholders of the corporation, and those to the creditors or customers of the bank. Under stockholders' liabilities may be classified three items: Capital, surplus, and undivided profits. To understand clearly why capital should be set down as a liability of the bank, it is necessary to conceive of the banking corporation as in itself a business entity to which the stockholders have intrusted their funds. The capital is not owned by the banking institution, but by the individuals who have bought its certificates of stock. These stockholders have the shares as evidence of the obligation of the bank to them; and in turn the bank must enter on its books a statement of the amount of capital thus owed to stockholders.

Capital is to be carefully distinguished from specie or cash. The difference can best be made clear by reference to the first entries that would have to be made on the books of a newly organized bank.

If $100,000 is raised from the sale of 1,000 shares of stock at $100 per share, the following entry would be made on the bank's books:

Resources		Liabilities	
Cash	$100,000	Capital	$100,000

As already indicated, the entry of Capital is the recording of the bank's obligations to its owners. The entry of a like amount under Cash means that there is in the vaults of the bank specie to the amount of $100,000 available for the use of the bank. The Capital item will remain unchanged so long as no new stock is issued or existing stock diminished, but the Cash entry changes constantly as the bank engages in its daily operations. Instead of using the term Cash, however, the term Reserve is ordinarily employed.

The item Undivided Profits states the amount of earnings that have been accumulated since the last distribution. It is a liability because the dividends are, like the Capital, owed to the stockholders. Like Capital, also, it is represented on the resources side of the account by Cash. When dividends are declared and paid the Undivided Profits account is lessened by the amount of the dividend payment, and the Cash item is reduced by the same amount, provided the dividends are paid in the form of cash.

Surplus is closely akin to Capital. It may arise in at least two ways. When stock of the par value of $100,000 is sold above par, say for $110,000, the account would appear as follows:

Resources		Liabilities	
Cash	$110,000	Capital	$100,000
		Surplus	10,000

This Surplus may be increased from year to year through a policy of not paying all the earnings of a bank to the stockholders in the form of dividends. Suppose a bank has Undivided Profits to the amount of $20,000. If the Capital is $100,000 the bank could pay a 10 per cent dividend to the stockholders and keep $10,000 in the business to supplement the existing funds. When this is done it is carried to Surplus. The Capital account, however, and in consequence the number of shares of stock outstanding, are kept the same as before. And dividends are computed on the Capital only—never on Surplus.

The other liabilities of a bank take two main forms, that of Deposits and that of Circulation or Notes. The latter item is a statement of the total amount of obligations the bank has outstanding in the form of its own notes or promises to pay. Anyone who

holds a bank note has a claim for cash against the bank that issued it for the amount stated on the face of the note. Bank notes are always payable on demand.

Deposits are of three classes: *Individual*, *Bank*, and *Government* deposits. The first is a statement of the amount owed by the bank to persons holding, not notes of the bank, but a right to draw upon the bank for funds, as evidenced by a certificate of deposit, balanced passbook, or monthly statement of account. Such deposits may be payable either upon demand or upon notice given a certain number of days in advance. Bank deposits is a statement of the obligations of the bank to other banks, and is often entered merely as "Due other banks." In a more detailed statement this item is divided into: Due national banks, Due state banks, Due trust companies and savings banks. Government deposits do not differ from the others in principle; they are merely funds owing to the government.

Other items found among liabilities in the typical statement are Certified checks and Cashiers' checks. The former arises as follows: Depositor X writes a check against his account for, say, $100 and asks the cashier of the bank to certify that the account is good for the amount, and hence that the check will be paid at maturity, by writing "Certified" across the face of the check and signing his name thereto. When the cashier does this the bank becomes directly liable for the payment of the check, and consequently immediately deducts the amount from Individual deposits (X's account) and adds it to Certified checks. A Cashier's check is an order on the bank to pay a certain sum drawn by the cashier rather than by an individual depositor.

Acceptances based on imports and exports represent obligations resulting from the bank's accepting drafts drawn against it by persons engaged in international trade. Accepting a draft is equivalent to a promise to pay. Letters of credit also arise in international transactions. The bank agrees to guarantee the credit of a merchant who wishes to buy goods abroad. The bank in this case does not accept drafts drawn against it, but asks a London correspondent to accept the drafts, the bank agreeing to collect from the merchant and forward the funds to its correspondent before the date of maturity of the drafts. Such business is done on a commission basis.

On the resources side of a bank statement we find first the item of Loans, or Loans and discounts. This item indicates that the bank has claims against individuals who have borrowed funds to the amount

named. As an evidence of these claims the bank has in its portfolio bills of exchange and promissory notes of individuals which cover the amount of the loans. These loans may be either on time or demand.

There is a slight difference between a loan and a discount. In the case of a loan the interest is payable at the expiration of the loan, or, if it be a long-time obligation, at stated intervals annually or semiannually. In the case of a discount, on the other hand, the interest is deducted in advance and the borrower is given, not $1,000, but $1,000 less the interest for the time the loan is to run. Then at the date of maturity he repays to the bank only the face of the loan, $1,000. A discount, then, is merely a loan in which the interest is payable in advance rather than at maturity. In practice nowadays discounting is almost universal, except for call or demand loans.

The item of Bonds, securities, etc., shows that the bank has in its possession various stocks and bonds which it has purchased from time to time. United States bonds to secure circulation indicates the ownership of bonds that are devoted to a specific purpose, that of serving as security for the issue of circulating notes. These bonds are not held in the bank's own vaults, for the law requires that they shall be deposited in the United States Treasury at Washington.[1] They are nevertheless an asset and the bank receives interest from the government just as it would if the bonds were in its own possession.

The item of Real estate is a statement of the value of the bank building, furniture, and fixtures and the ground upon which the bank is located, together with such other real estate as may be necessary to the conduct of the banking business.

Reserve is the statement of the amount of money that the bank has in its till and vaults. It is made up of all the various forms of our currency, except bank notes and minor coins. If a national bank holds in its possession notes of other banks, a separate entry is made "Notes of other banks" or "Bills of other banks." This is because the law specifies that no national bank shall count bank notes as a part of its specie reserve. A state bank, however, not subject to this provision would not need to make a separate entry for bank notes.

Items closely connected with cash are "Due from other banks" and "Exchanges for clearing-house," or "Checks for clearing," to use another expression. The former indicates that this bank has

[1] Under the federal reserve system this item will probably eventually disappear.

deposits with other banks against which it can draw on demand. "Exchanges for clearing-house" means that this bank has checks on other banks to the amount named, which it has cashed or credited to the accounts of its depositors, and in exchange for which it may receive cash from the banks against which the checks were respectively drawn. In practice, however, when presented to the clearing-house these checks are largely counterbalanced by similar claims against this bank, and only a small net balance, one way or the other, need be paid in cash.

Federal reserve notes are notes issued by the regional (central) institutions. They are to nearly all intents and purposes as good as cash, though they may not be counted as part of the lawful reserve.

21. DISCOUNT, DEPOSIT, AND ISSUE[1]

By CHARLES F. DUNBAR

The business of a commercial bank is said to be to lend or discount and to hold deposits. With these two functions may be combined a third, that of issuing bank-notes, or the bank's own promises to pay, for use in general circulation as a substitute for money.

The borrower who procures a loan from a bank does so in order to provide himself with the means either of making some purchase or of paying some debt. He seeks, therefore, to obtain, not necessarily money, but a certain amount of purchasing power in available form, or of whatever may be the usual medium of payment, measured in terms of money. If we suppose him to be a merchant, buying and selling goods upon credit in the regular course of his business, he is likely at any given time to have in his hands a greater or less number of notes, not yet due, signed by the persons to whom he has heretofore made sales; and it is in the form of a loan, made upon the security of one or more of these notes and giving him immediate command of the amount which will become due upon them in the future, that he is likely to procure what he needs from the bank. This loan may be supposed to take the form of what is termed a discount; in which case, in exchange for the note "discounted," the borrower is entitled to receive from the bank the amount promised in the note, less the interest on that amount computed at an agreed rate for the time which the note has still to run. The discounted note becomes

[1] Adapted from *Theory and History of Banking*, pp. 9–15. (G. P. Putnam's Sons, 1891.)

the property of the bank, to which the promisor is henceforward bound to make payment at maturity; and this payment when made obviously restores to the bank the amount advanced by it in exchange for the note, together with the interest which was the inducement for making the exchange.

It is now clear, however, that the operation which we have described, although spoken of as a loan by the bank to a borrower, is in fact something more than a loan. The note when given was evidence that its holder owned the right to receive at a fixed date a certain sum of money, and this right the so-called borrower has ceded to the bank. Passing over for the present all question as to what he has received in exchange, his cession of property by sale is as distinct and complete as if he had sold a bale of cotton to another merchant instead of selling to a bank his right to receive money in the future. The note has ceased to be his, and now takes its place among the investments or securities of the bank, although custom may lead to its classification as a "loan or discount."

We have now to consider what it is that the bank gives in exchange for the right to demand and receive money at a future time, acquired by it under these circumstances. The proceeds of the discounted note, or its nominal amount less the interest for the time for which it is to run, are in the first instance placed to the credit of the merchant, to be drawn out by him at once or at different times, as convenience or necessity may dictate. In thus crediting him with the proceeds, the bank plainly gives to him simply the right to call upon it at pleasure for that sum of money. Whether this right is exercised at once by demanding and receiving the money, or whether the exercise of it is postponed as regards the whole or a part of the amount, in either case the right to demand, or to "draw," is the equivalent received by the merchant in exchange for the right, sold by him to the bank, of which the note discounted was the evidence. The sum which he is thus entitled to call for is said, so long as it stands to his credit, to be deposited in the bank, or to be a deposit standing in his name, so that the transaction is seen to be, both in form and in substance, an exchange of rights.

But a deposit may owe its origin to a different operation from that which has just been examined. It happens every day that the merchant, having cash in hand, prefers not to hold it in his possession until it is required for use, but to "deposit" it with the bank where he usually transacts his business until he needs to use it. In this

case, when he makes his deposit, the property in the money or substitutes for money actually handed in by him passes to the bank, and he receives in exchange the right to demand and receive at pleasure, not that which he paid in, but an equivalent amount. Here, then, as in the former case, the transaction is in effect a sale, although the use of the word "deposit" seems at first to suggest an entirely different idea of its character.

The other leading operations of banks, when analyzed, can also be resolved into cases of the exchange of rights against rights, or of rights against money; as, for example, when the bank, for the convenience of its customer or depositor, undertakes to collect a note due to him by some third party, in which case the amount paid to the bank in money by the promisor is passed to the credit of the promisee as a deposit. Here the bank has received money for the account of the depositor, and has given to him in exchange a right to draw at pleasure for the amount or any part thereof, the property in the money actually paid having passed absolutely to the bank in exchange for the right to draw. And again, when the bank buys from a merchant a bill of exchange, or when it sells a bill of exchange drawn by itself on some correspondent, it effects an exchange of money against a right, or of a right against money, strongly resembling those already considered.

A little consideration of the manner in which notes are issued by banks will show that in the bank note we have only another form of liability, differing in appearance, but not in substance, from the liability for deposits. The bank note is the duly certified promise of the bank to pay on demand, adapted for circulation as a convenient substitute for the money which it promises. It is issued by the bank, and can be issued only to such persons as are willing to receive the engagement of the bank in this form instead of receiving money, or instead of being credited with a deposit. Thus the so-called borrower, who in the first instance has been credited with a deposit and to whom the bank is therefore to this extent liable, may prefer to draw the amount in notes of the bank and to use them in making his payments. But, in this case, it is plain that the liability of the bank is changed only in form; it is still a liability to pay a certain sum of money on demand. And so if the depositor pays in money and receives notes, or receives notes in satisfaction of a demand of any kind against the bank, he, in fact, foregoes the use of the money itself and consents to receive in its stead a promise to pay upon

demand and to receive the evidence of that promise in the form of notes. The question in which form he shall hold his right of demand against the bank is one to be decided by the nature of his business or by his present convenience, but plainly the decision of this question in no way alters the relation between himself or any transferee of his right, on the one hand, and the bank on the other. The notes issued by a bank are thus a liability distinguishable in form only from its liability for deposits, and the functions of deposit and issue, instead of being distinct, as is often assumed, are one in substance.

22. THE ONE UNDERLYING FUNCTION OF A BANK[1]

By H. PARKER WILLIS

What is banking? Many writers define a bank as an institution which exercises the functions of discount, deposit, and issue, a classification which yields very little insight because of the fact that such a grouping of functions is merely a way of describing banking as an operation from different points of view. What the bank does is the same under each of these heads; there is no difference in its essential performance. Reduced to its lowest terms, this essential function is that of guaranteeing the credit of individuals. The basic banking transaction may be described as follows:

A has purchased goods from B and has given B a document or "note," in which he promises to pay B the sum of $1,000 with interest at the end of ninety days. We may assume that this payment is absolutely certain, and that there is no risk of loss. B, however, wishes to get means of payment immediately in order to meet his own obligations. In order to do this, he resorts to someone who has immediate funds and asks him to extend "accommodation." The banker takes the note from B, and B gets in exchange the right to draw upon the bank at sight up to an amount agreed upon. This process is called discount, and the difference between the amount that B can draw at sight and the face of the note is the discount for this transaction. The banker seldom, if ever, enters into such a transaction without having B's endorsement or guarantee on the note, but it is plain that what has been done is to substitute the credit of the bank for the credit of A and B. The banker counts upon not being asked to pay money for the drafts drawn on him by B. That is to say, he expects that not everyone to whom B gives a draft or

[1] Adapted from *The Federal Reserve*, pp. 5–9. (Doubleday, Page & Co., 1915.)

check on him will want to cash it, or, if such cashing should be demanded, that other checks and drafts will come into his possession sufficient to offset those which he is thus asked to make good.

This hope is founded upon the fact that the banker accepts the funds on deposit. He allows persons who want to have their money safely kept to leave it with him, and this affords them a convenience because they can now pay by means of checks. When he makes a discount he may, and usually does, in the United States, make it merely by crediting the person to whom it is granted with a fixed sum, allowing that person to draw on it to the amount indicated. It is clear that this "deposit" function is the same as the discount function, except in so far as the deposits with the banker consist of money. Where they are created simply through crediting a customer with a specified amount, the deposit function is merely another aspect of the discount function. Neither function could be carried on without the other.

It may be that the customer of the bank would rather not receive the credit on the books of the institution because the persons with whom he deals do not understand the check system or have no facilities for cashing checks. Should that be true, the customer will probably ask to receive his discount in currency. If the banker is allowed to exercise the issue function, he will then merely hand the person to whom he has granted the discount a quantity of "bank notes." They are notes which he agrees to pay at sight if presented. In this phase of the operation the banker has merely taken the note from B and given in exchange a quantity of his (the banker's own) notes in small denominations. The banker now has A's note endorsed by B for $1,000 for ninety days, while B, having paid, say, $10 for the service, has, say, ninety-nine of the banker's notes of ten-dollar denomination payable to bearer. The question may be asked why B did not simply issue his own notes, numbering one hundred, of denominations of $10, and pay them to anyone who desired him to settle his obligation. There is no reason why he might not have done so except that the banker's credit is better known than his, and that the banker specifically undertakes to pay his own notes in money when they are presented. It is quite true that in most cases the holder of such a note will not present it for payment; but one principal reason why he does not do so is that he knows he can, if he chooses, liquidate in that way at any time. Performance of the operation just referred to over and over again, and proper protection of the

bank's notes and deposits issued or granted so that the holder may get cash at sight, is commercial banking. The banker may modify the plan of his business by entering into an agreement with his customers to pay them, not at sight, but on time; and in that case he is able to use such funds as come to him for long-time investments. The basic idea is the same in the one case as in the other, but the method of procedure is different.

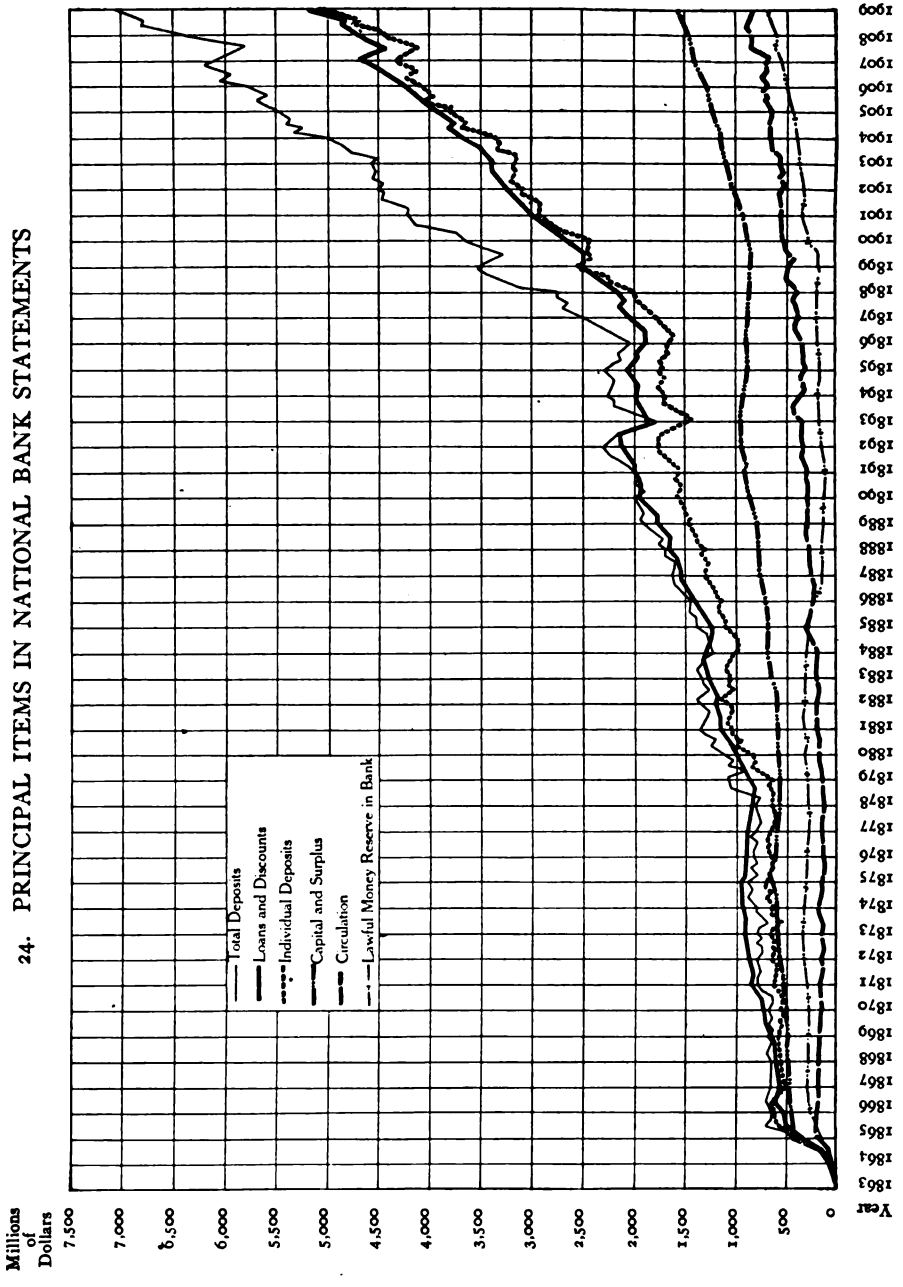
23. NOTES AND DEPOSITS IN DIFFERENT CLASSES OF BANKS[1]

(In millions of dollars)

Year	New York City		Other Central Reserve and Reserve Cities		Country Banks		Totals	
	Notes	Deposits	Notes	Deposits	Notes	Deposits	Notes	Deposits
1870....	32.9	167.0	68.4	134.7	190.5	199.7	291.8	501.4
1875....	18.3	173.5	69.4	197.9	230.7	293.2	318.4	664.6
1880....	18.6	242.0	72.4	234.3	226.4	397.2	317.4	873.5
1885....	9.9	250.5	55.3	302.1	203.7	549.8	268.9	1,102.4
1890....	3.6	251.4	15.1	469.6	104.2	843.8	122.9	1,564.8
1895....	14.3	299.7	32.7	509.3	135.4	892.7	182.5	1,701.7
1900....	29.3	420.7	63.7	775.2	190.9	1,312.3	283.9	2,508.2
1905....	53.7	657.7	120.4	1,086.5	294.9	2,076.5	459.0	3,820.7
1909....	52.8	780.0	181.8	1,477.2	423.5	2,754.9	658.1	5,012.1

[1] From *Statistics of Banks and Banking in the United States, 1867–1909.* (National Monetary Commission, 1910.)

24. PRINCIPAL ITEMS IN NATIONAL BANK STATEMENTS



25. THE FUNCTION OF A CASH RESERVE[1]

By IRVING FISHER

It cannot be too strongly emphasized that, in any balance sheet, the value of the liabilities rests on that of the assets. The deposits of a bank are no exception. We must not be misled by the fact that the cash assets may be less than the deposits. When the uninitiated first learn that the number of dollars which note-holders and depositors have the right to draw out of a bank exceeds the number of dollars in the bank, they are apt to jump to the conclusion that there is nothing behind the notes or deposit liabilities. Yet behind all these obligations there is always, in the case of a solvent bank, full value; if not actual dollars, at any rate dollars' worth of property. By no jugglery can the liabilities exceed the assets except in insolvency, and even in that case only nominally, for the true value of the liabilities ("bad debts") will only equal the true value of the assets behind them.

These assets are largely the notes of merchants, although, so far as the theory of banking is concerned, they might be any property whatever. If they consisted in the ownership of real estate or other wealth in "fee simple," so that the tangible wealth which property always represents were clearly evident, all mystery would disappear. But the effect would not be different. Instead of taking grain, machines, or steel ingots on deposit, in exchange for the sums lent, banks prefer to take interest-bearing notes of corporations and individuals who own, directly or indirectly, grain, machines, and steel ingots; and by the banking laws the banks are even compelled to take the notes instead of the ingots. The bank finds itself with liabilities which exceed its cash assets; but in either case the excess of liabilities is balanced by the possession of other assets than cash. These other assets of the bank are usually liabilities of business men. These liabilities are in turn supported by the assets of the business men. If we continue to follow up the ultimate basis of the bank's liabilities we shall find it in the visible tangible wealth of the world.

We have seen that the assets must be adequate to meet the liabilities. We now wish to point out that the form of the assets must be such as will insure meeting the liabilities promptly. Since the business of a bank is to furnish quickly available property (cash

[1] Adapted from *The Purchasing Power of Money*, pp. 40–46. (The Macmillan Co., 1913.)

or credit) in place of the "slower" property of its depositors, it fails of its purpose when it is caught with insufficient cash. Yet it "makes money" partly by tying up its quick property, i.e., lending it out where it is less accessible. Its problem in policy is to tie up enough to increase its property, but not to tie up so much as to get tied up itself. So far as anything has yet been said to the contrary, a bank might increase indefinitely its loans in relation to its cash or in relation to its capital. If this were so, deposit currency could be indefinitely inflated.

There are limits, however, imposed by prudence and sound economic policy on both these processes. Insolvency and insufficiency of cash must both be avoided. Insolvency is that condition which threatens when loans are extended with insufficient capital. Insufficiency of cash is that condition which threatens when loans are extended unduly relatively to cash. Insolvency is reached when assets no longer cover liabilities (to others than stockholders), so that the bank is unable to pay its debts. Insufficiency of cash is reached when, although the bank's total assets are fully equal to its liabilities, the actual cash on hand is insufficient to meet the needs of the instant, and the bank is unable to pay its debts on demand.

The less the ratio of the value of the stockholders' interests to the value of liabilities to others the greater is the risk of insolvency; the risk of insufficiency of cash is the greater the less the ratio of the cash to the demand liabilities. In other words, the leading safeguard against insolvency lies in a large capital and surplus, but the leading safeguard against insufficiency of cash lies in a large cash reserve. Insolvency proper may befall any business enterprise; insufficiency of cash relates especially to banks in their function of redeeming notes and deposits.

Since, then, insufficiency of cash is so troublesome a condition—so difficult to escape when it has arrived, and so difficult to forestall when it begins to approach—a bank must so regulate its loans and note issues as to keep on hand a sufficient cash reserve, and thus prevent insufficiency of cash from even threatening. It can regulate the reserve by alternately selling securities for cash and loaning cash on securities. The more the loans in proportion to the cash on hand the greater the profits, but the greater the danger also. In the long run a bank maintains its necessary reserve by means of adjusting the interest rate charged for loans. If it has few loans and a reserve large enough to support loans of much greater volume, it will endeavor

to extend its loans by lowering the rate of interest. If its loans are large and it fears too great demands on the reserve, it will restrict the loans by a high interest charge. Thus, by alternately raising and lowering interest, a bank keeps its loans within the sum which the reserve can support, but endeavors to keep them (for the sake of profit) as high as the reserve will support.

If the sums owed to individual depositors are large relatively to the total liabilities, the reserve should be proportionately large, since the action of a small number of depositors can deplete it rapidly. Similarly, the reserves should be larger against fluctuating deposits (as of stockbrokers) or those known to be temporary. The reserve in a large city of great bank activity needs to be greater in proportion to its demand liabilities than in a small town with infrequent banking transactions.

Experience dictates differently the average size of deposit accounts for different banks according to the general character and amount of their business. For every bank there is a normal ratio, and hence for a whole community there is also a normal ratio—an average of the ratios for the different banks. No absolute numerical rule can be given.

B. Analysis of Bank Loans

(1) INTRODUCTORY

26. THE MANAGEMENT OF LOANS

In any business the extent and character of the assets owned in relation to the liabilities is the test of good management. If the accounts and bills receivable are certain to be paid when due, and if they are ample to cover all current liabilities, the business is regarded as fundamentally sound. Commercial banking differs from other businesses in this connection only in the greater need imposed upon it of keeping its assets in a liquid form. If a merchant finds himself unable to meet current obligations from maturing assets, he may seek an extension of time, but a bank when called upon to discharge its obligations must pay at once. If it has insufficient funds for the purpose there are but two alternatives open: to secure a loan from another bank or to announce insolvency. The procuring of the necessary funds from other bankers is often impossible, and it is therefore of the greatest importance that a bank manage its loans and discounts in such a way that they may be absolutely relied upon.

The greatest care should be observed in the granting of loans. The security offered should be such that the bank has virtually no doubt of the safety of the loan and of its prompt payment. The maturities of the loans should be so arranged that they will insure, as nearly as may be, a constant flow of funds to the bank, a flow ordinarily sufficient to meet the constant drain of funds from the bank. A correct policy in this connection would endeavor to provide for as many maturities as possible on days or weeks that are known to be periods of heavy withdrawals, and to arrange for fewer payments when the withdrawals are known to be light. It is obviously impossible to make the flow of funds to the bank exactly coincide with the withdrawals—so that no reserve at all would be required—but it is evident that the bank management should strive for this goal. The sounder and more liquid the loans that are made and the more scientific the arrangement of maturities, the less is the reserve required in the handling of a given quantity of business, and in consequence the greater margin of profit to the bank.

27. CLASSIFICATION OF LOANS IN NATIONAL BANKS[1]

The ordinary commercial bank has the option of making the following types of loans: first, on notes secured by mere personal responsibility; secondly, on notes secured by real estate; thirdly, on commercial paper of the following kinds: (*a*) the single-name promissory note, (*b*) indorsed notes and accepted drafts, (*c*) notes and drafts accompanied by documentary evidence; fourthly, on notes secured by collateral.

These loans may be further classified according to whether they are time loans—thirty, sixty, or ninety days, or more—or demand loans, subject to immediate liquidation.

The following table shows the classification of loans, first, in all national banks, and, secondly, in all national banks in New York City:

[1] Compiled from reports of the Comptroller of the Currency.

ALL NATIONAL BANKS

(In millions of dollars)

Year	On Demand, Paper with One or More Individual or Firm Names		On Demand, Secured by Stocks, Bonds, and Other Personal Securities		On Time, Paper with Two or More Individual or Firm Names		On Time, Single-Name Paper (One Person or Firm) without Other Securities		On Time, Secured by Stocks, Bonds, and Other Personal Securities or by Real Estate Mortgages or Other Liens on Realty		Totals of All Loans and Discounts
	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount
1880..	.....	.....	145.8	14.1	.....	.....	60.7	5.8	.....	.....	1,037.0
1885..	.....	.....	177.9	13.6	.....	.....	171.5	13.2	.....	.....	1,301.0
1890..	.....	.....	271.7	13.8	1,105.9	56.1	298.1	15.1	294.2	14.9	1,970.0
1895..	101.6	4.9	284.1	13.9	957.2	46.8	317.8	15.5	381.2	18.6	2,041.9
1900..	183.3	6.8	576.6	21.4	978.3	36.4	421.8	15.6	536.8	19.5	2,686.8
1905..	320.1	8.0	854.0	21.3	1,382.2	34.5	689.1	17.2	753.0	19.0	3,998.5
1910..	524.3	9.6	939.1	17.1	1,842.5	33.7	1,068.3	19.5	1,092.9	19.9	5,467.1
NATIONAL BANKS IN NEW YORK CITY											
1895..	5.7	1.5	118.8	32.6	116.6	32.0	60.2	16.5	62.6	17.2	363.9
1900..	7.2	1.2	254.6	44.6	101.9	17.8	76.1	13.3	129.8	22.7	569.6
1905..	11.4	1.4	385.7	47.8	135.7	16.8	116.0	14.3	157.0	19.4	805.8
1910..	9.9	1.1	328.1	37.5	176.6	20.1	170.7	19.5	188.5	21.5	873.3

28. CLASSIFICATION OF LOANS IN STATE BANKS, 1909[1]

(In millions of dollars)

Regions	Number of Banks	On Demand, Unsecured by Collateral	On Demand, Secured by Collateral	On Time, with Two or More Names, Unsecured by Collateral	On Time, Single-Name Paper, Unsecured by Collateral	On Time, Secured by Collateral	Secured by Real Estate Mortgages or Other Liens on Realty
New York City	44	2.2	70.3	71.8	43.1	45.8	7.2
Minneapolis	10	1.2	0.2	2.4	0.6	1.1	0.5
Wisconsin	445	6.6	3.3	21.9	13.9	11.4	20.8
Southern states	3,312	14.1	26.3	116.0	25.4	74.8	56.7
United States	11,292	134.9	226.8	542.0	253.0	326.2	334.9

(2) COMMERCIAL PAPER

29. LOANS ON COMMERCIAL PAPER[2]

BY ROGER W. BABSON AND RALPH MAY

Mercantile businesses are in almost constant need of borrowing money for short periods of time. They find a call for merchandise and a chance to buy it for less than they can sell it. To fill all orders they can get they need more money than they have with which to buy this merchandise. Such borrowing as this, to buy merchandise or something similar, which is to be turned into cash, presumably at a profit, and within a short time, is called borrowing through commercial paper. Commercial paper is the name given the medium for such borrowing and is not properly applied to any other form of borrowing. It fills a field of its own and requires separate analysis and study. It is different from the borrowing of railroads and public service corporations, even for an equivalent time. It is different from the borrowing of an individual on the most salable of security and with ample margin. It is a method of finance all its own, just as mortgage bonds are in their particular field. It is a very important factor in the financial system of any country, for as business is the attempt to turn available wealth into capital, and as most business

[1] From *Special Report from the Banks of the United States*. (National Monetary Commission, 1909.)

[2] *Commercial Paper*, pp. 29–37. (Roger W. Babson, 1912.)

must have to do with the purchase and sale of merchandise, so commercial paper must play a most important part, if not the most important part, in financing the business needs of a community or nation. Commercial paper is one of the biggest aids that we can make use of in economic progress, that is, in the acquisition of true wealth. Commercial paper is entirely as proper an economic medium for borrowing and lending in its own particular field as are other forms of security in theirs, and when properly used to do the work for which it is intended, and no more, it is exactly as safe. Loans to packing-houses on short time, or to some large dry-goods house, or to a mill (if properly issued) are examples of commercial paper. These loans are made to firms conducting a well-known business and for well-known needs. They distinctly belong with loans, the interest on which is pure interest, as there is no exceptional risk involved in the loan.

The use of commercial paper as a medium of finance is by its nature confined to the raising of money with which to buy stock in some regular business or to avoid selling that stock temporarily. In this country much commercial paper is sold in order to raise money to buy machinery or other fixed assets. These are no less valuable, perhaps, than the merchandise is, *but there is absolutely no hope of converting them into cash within the life of the notes, and notes issued for this purpose are not properly commercial paper.*

Inasmuch as the proceeds of commercial paper are to go to the purchase of merchandise, it follows that from the nature of merchandise it cannot well be given as collateral. Commercial paper is, therefore, usually an ordinary promissory note without collateral. As merchandise must be sold within the life of the note and as stock in trade must usually be exhibited and be in shape for immediate delivery to be sold to the best advantage, it would be injurious not only to the borrower but to the lender to require it as collateral.

30. KINDS OF COMMERCIAL PAPER[1]

BY J. LAURENCE LAUGHLIN

1. *The single-name promissory note.*—Suppose that A, who is doing a large business, has sold goods on credit (open account) to many customers. A may find himself short of current funds in consequence of the absorption of his capital in carrying these cus-

[1] Adapted from *Banking Reform*, pp. 77–81. (National Citizens' League, 1912.)

tomers. If he goes to the bank for accommodation, he may request a loan simply on the strength of his own personal, unsecured note. In this case the wisdom of the bank in granting the loan will depend entirely upon what it knows of the customer. If the total amount which he desires is moderate as compared with his total assets, and particularly as compared with his current cash receipts over a specified period, the loan is "safe." If it complies wholly with these requirements, it is, perhaps, the safest purchase the bank can make, since the individual has total assets largely in excess of the loan, while he has current incomes that supply the means for prompt payment. Paper thus obtained is termed single-name paper.

2. *Two-name paper.*—Suppose, however, that A, instead of selling his goods on credit (open account), has required his customers to give him their notes payable at thirty days. He may take these notes to his bank and ask for a discount, in which case the bank will desire to know substantially the same things as before. It may or may not make a close inquiry into the condition of the persons who gave the notes to the merchant that originally sold the goods. It assumes, of course, that A has investigated them with care. But its real security is found in the fact that it knows the man who presents the notes for discount, is familiar with his business, and requires him to indorse the notes before getting accommodation based on them. This is called two-name paper, and while collection at maturity will first be sought from the person who made the notes—that is, the person who bought the goods from the original merchant and gave the latter the notes in exchange—the bank will, if payment is not promptly made, require the person who secured the discount to make good the sum.

The value of two-name paper as compared with single-name paper is entirely relative and dependent upon circumstances. If the individual who presents the notes for discount is stronger and better known financially than the makers of the notes, it is probable that his own unsecured note would be quite as satisfactory as the two-name paper. If the maker of the notes and the man who presents them for discount are both persons of small resources and questionable credit, the combination of liability furnished by the two-name paper is not important and does not of itself make the paper good. The ultimate test is invariably found in the responsibility of those whose names appear, and if one of these names represents unquestioned commercial solvency, it is far better as a protection to the bank than several names whose credit is doubtful or limited.

The kind of two-name paper which has just been described is not the only one. In many parts of the country it is not even the most important. A, who sold the goods to B, may, instead of requiring B to give him a "note" payable after thirty days, stipulate, at the time when his sale is made, that he will simply "draw" on B "at thirty days' sight." That is to say, simultaneously with his shipment of goods to B he hands to his bank a draft on B which is payable thirty days after being presented to the latter. The bank then sends this draft to a bank in the place where B is situated, and this bank presents it to B, who, if the transaction is carried out, "accepts" the draft by writing his name, with the date, upon it under the word "accepted." This makes the draft an obligation on the part of B to pay a specified sum at the end of a specified time. It is primarily an obligation of B's, but in case he should not pay it, any person who had acquired A's claim on B in the meantime would look to A for payment.

Now, if A merely passed the draft to his bank for collection, he must wait thirty days in order to get his payment, which is then reported to him and placed to his credit by the bank that originally took the draft. Probably, however, A wants funds at once. If so, he has told his bank at the outset that he wishes to have the draft discounted. In that case the bank has allowed him an immediate credit on its books equal to the face of the draft less discount. It then looks to B for payment, thereby standing in the place of A. But in the event that B defaults and does not liquidate at the specified time, A's bank will look to A, the merchant, for reimbursement of the amount which it originally advanced him on the strength of his application for a discount accompanied by the draft on B. It is, in short, protected by two names. Paper of this kind is regarded with peculiar favor by banks, because it grows out of a live commercial transaction; and, where the operation is legitimate, there is every reason to suppose that B will liquidate at maturity, while in case he does not, the bank can fall back upon an individual in its own city about whom it has full information. It may make the discount with confidence if it is absolutely assured of the solvency and honesty of either A or B, the transaction itself being good evidence that there is real value in existence to back up the transaction.

3. *Paper accompanied by documentary evidence.*—If the bank wishes to be exceedingly well protected, it may demand that A, who discounts the draft with it, shall turn over to it, along with the draft

itself, the documents which give control of the property which has been sold, so long as the same is in transit. These documents may be of several kinds and more or less numerous. The commonest is the ordinary "bill of lading," issued by the common carrier who has accepted the goods. It indicates that the ultimate power of demanding the goods from the carrier has been surrendered by the shipper and is now in the hands of the bank which has discounted the draft. The bank may send this bill of lading, along with the draft, to its correspondent bank in the place where B lives, and may decline to give up the title to the property until such time as B liquidates the draft. Or it may assent to the surrender of the property under conditions which are satisfactory to itself. In this case the use of the documents serves to locate the responsibility for releasing the ultimate property on which the transaction is based—the goods that passed from A to B in the original transaction.

Besides the bill of lading thus referred to there may be certificates of insurance, and, in the case of foreign shipments, master's receipts, the proper consular invoices, health certificates in the case of foodstuffs, etc. The aim in transferring these documents is to show that all the requirements of a bona fide sale have been complied with, and that the way has been completely cleared for putting the goods en route to the consumer via the ultimate dealer, while all risks in connection with the process have been transferred to others who are prepared to assume such risks. This is a way of giving the bank additional assurance that everything is right, and that it has nothing to apprehend from legal or other obstacles. It then assumes only the legitimate risks which it was organized to incur—those connected with the transfer of property from man to man, and the collection of the proceeds of sales, either at sight or after the lapse of a specified period.

31. DURATION OF COMMERCIAL PAPER[1]

By ROGER W. BABSON and RALPH MAY

From a study of general business we may take a year as the longest time that commercial paper may be allowed to run. Only the very strongest borrowers, however—those who by the nature of their business and a past history of successful operation show especial strength—should be allowed by lenders to make their commercial

[1] *Commercial Paper*, pp. 40–43. (Roger W. Babson, 1912.)

paper for as long a term as a year. The best mills, such as successful cotton mills, whose paper is endorsed by selling houses in the best of repute, are examples of such business. Occasionally, because of attractive rates, bankers who see by their study of fundamental business conditions that rates will probably decline lend strong mercantile companies or firms for so long a period as a year, and do so with authority, not because it will take so long a period as a year to sell the goods bought, but because the lender is sure that when the first lot of merchandise is sold the proceeds will be used to buy more merchandise, the result being the same as if the lender had renewed once or more an original borrowing. Conversely, borrowers who study fundamental conditions are justified in borrowing year money when statistics show clearly that rates will advance. The practice of allowing credit through commercial paper on merchandise which will undoubtedly be sold long before the paper matures is, however, a dangerous practice, especially for those who are not fully familiar with fundamental business conditions and all changes which occur from week to week. For such it is better for both the lender and the borrower to start anew with each individual transaction.

Most commercial paper should mature within six months, much within four months, much within ninety days. With any proper operation of commercial paper as a medium of finance, the time the paper has to run will decrease with sixty to ninety days as its limit. Foreign countries, older communities than this, rarely have commercial bills for six months' time. Six months should be taken in general as the maximum time commercial paper shall be allowed to run, the varying maturities allowed being governed by the convertibility of the merchandise back of them and the foresight of the principals involved. Packing-house paper, which is presumably secured by merchandise which has as ready a sale as almost anything, is especially safe and may be taken with safety for the full time if the makers desire a six months' maturity. Commission merchants, such as those dealing in cotton cloth and selling for mills, or houses selling groceries and like goods, for which there is a constant demand, should also, if they wish, be allowed six months' time.

Paper of manufacturers, say of a special form of shoe, the value of which is quick to change with fashion and the sale of which ought to be arranged for practically before the paper to cover the merchandise is put out, should not be made for over five months. Care should be taken, too, that a firm manufacturing a specialty does not renew

its paper except under exceptional circumstances. Such renewals, if in any quantity, should be taken as a danger sign at once. Makers of heavy machinery may or may not be given credit for so long as six months with safety. Usually, in the case of such borrowers, most of the machinery made is contracted for. If a customer is not ready to fill his contract immediately and yet is good, it is perfectly proper that the manufacturer should be given credit to carry his merchandise; but care should be taken that such credit is based on a firm basis. The trade accounts of the manufacturers of heavy machinery and the like, who make their paper regularly for the longest possible period, should be examined with especial care.

32. CONFUSION OF COMMERCIAL AND INVESTMENT LOANS[1]

By WILLIAM A. SCOTT

It is possible, indeed very easy, for a bank to confuse commercial and investment loans. This confusion is most readily accomplished by the exchange of investment securities for checking accounts. Thus a commercial bank may treat bonds, mortgages, or the personal notes of its customers indefinitely renewed and discounted for investment purposes in the same manner that it treats genuine commercial paper. The bank creates for itself a demand obligation, just as in the case of a loan on commercial paper, but without any assurance that the funds loaned will be devoted to uses which will provide for an early liquidation of the loans.

There are several reasons which account for the prevalence of this confusion in commercial banks. The fact that circulating notes supposed to be adequately protected by government bonds are put into the hands of national bankers and are regarded both by them and by the general public as money which, under ordinary circumstances, will not need to be redeemed, tempts the banks to exchange them for investment securities, or at least obscures the harm of such a procedure.

The laws pertaining to our state banks also encourage the confusion of these two departments of banking. Some of these laws place no limit whatever upon the amount of investment such banks may

[1] Adapted from "Investment vs. Commercial Banking," *Proceedings of the Second Annual Convention of the Investment Bankers' Association of America*, 1913, pp. 81–84.

make in real estate and mortgage securities, and in other cases the limits prescribed for such investments do not depend in any respect upon the capital, surplus, and savings funds which they possess. Indeed, in country towns these banks are encouraged to loan their funds to farmers on mortgage security and for the purpose of assisting them, not in the transfer of their crops to consumers, or in the transformation of seed into crops, but for the purchase of their lands, the construction of their buildings, the equipment of their farms with drainage, irrigation works, cattle, machinery, etc. Thus they are tempted, and in some cases almost forced, to transform investment securities into checking accounts.

Our reserve system contributes to the same end. It compels our banks to keep locked up in their vaults in cash a certain percentage of their deposit liabilities. A larger percentage is usually kept on deposit with banks in reserve cities, and since they must be held subject to call, these funds flow to New York City, where they are invested on call loans on the New York Stock Exchange. The fact that under ordinary circumstances the loans of a broker when called can be transferred from one bank to another, and that the securities deposited as collateral can be readily sold upon the stock exchange, has created the impression that these loans are really liquid. As a matter of fact they are not liquid in any proper sense of the term. The sale of a bond or of a certificate of stock on the New York Stock Exchange is not liquidation. It is merely a transfer of obligations from one person to another, and if the pressure for realization upon call loans is great, these transfers cannot be made in the ordinary manner, and crisis ensues.

The third part of our reserves takes the form of high-class bonds listed upon the exchanges. Banks call these their secondary reserves and ordinarily feel quite safe when they have large quantities of them in their vaults. In this case also they are deceived by the fact that ordinarily, when everything is running smoothly, such bonds can be turned into cash, and they are accustomed to call these securities liquid on that account, but they are no more liquid than are the call loans based upon them, and pressure to realize on this portion of our reserves, if it be great, is forced liquidation, and in extreme cases also results in crises.

So far as the danger of confusing commercial and investment loans is concerned, in many respects the worst of our banking practices still remains for discussion. I refer to the basis on which lines of credit

for ordinary bank customers are established and administered. It is customary for a business man to arrange with his banker for such a line, and too often in determining how much it shall be the bank takes into consideration the man's total possessions rather than the volume of commerce which he transacts. The line once determined, the customer expects that the bank will carry him for that amount and usually resents too close inquiry into the way in which he employs borrowed funds. Though the banker usually insists that his customer's paper shall be drawn for short periods of time, both expect that this paper will be renewed at maturity. Indeed both the customer and the banker are apt to regard the amount fixed in the line of credit as a part of the former's permanent working capital. The practice of demanding carefully drawn statements of a customer's business is fortunately growing, but it is still very far from common. The correct interpretation of these statements when they are drawn is even less common.

On account of this practice a banker rarely knows to what extent the paper in his portfolios represents commercial and to what extent investment processes. Until the test of forced liquidation actually comes, he does not know how large a percentage of his resources are really liquid. Under these circumstances it is not surprising that the line between investment and commercial loans is frequently crossed.[1]

33. THE CREDIT DEPARTMENT OF A BANK

The credit department of a bank is a development of the past twenty-five years. Today practically all of our large city banks have such a department, though in the country as a rule the work is not yet differentiated. The functions of a credit department consist of a systematic and judicious collection of data respecting the financial responsibility, character, antecedents, and business qualifications and abilities of the bank's customers, the classification of the data on each customer in chronological order, and their systematic preservation for future reference and comparison. A well-arranged file will disclose at a glance the entire career and present business standing of any customer.

The principal sources of credit information are as follows: (1) signed property statement from the borrower; (2) reports from competitors of the borrower; (3) reports from the trade, that is, from his

[1] Compare chap. xi, sec. 1.—EDITOR.

mercantile creditors; (4) reports from banks with whom he has dealt; (5) reports from commercial agencies; (6) reports from other departments of the bank that may have come in contact with him; (7) general "gossip" of the community.

The most important of these sources of information is by all odds the financial statement. It is an itemized exhibit of the resources and liabilities of the customer, usually at date of last inventory. A careful analysis of a statement will show the amount of cash that could be realized from the business if it were suddenly liquidated and its assets thrown on the market. Some of the largest banks now supplement this statement by an investigation of the factory or store conducted by the borrower. Expert appraisers and engineers are sometimes employed for the purpose.

Dun's and Bradstreet's reports furnish a great amount of valuable historical data as well as collateral evidence bearing on the present status of the borrower. They collect information with reference to business houses and give them a "rating" in their reports. They aim to cover the entire field and include every individual business man, but with new enterprises and even new cities springing up daily it is impossible in practice for them to furnish recent information on all mercantile concerns. A serious handicap to reliable information lies in the fact that the agency reporters are not always treated with the greatest freedom and confidence. Moreover, the reporters are poorly paid, and hence many of them are poorly qualified for the work in hand. There is also, in many instances, an evident desire on the part of the firms concerned to strengthen their "rating" by deliberate deception. Nevertheless, the service performed by the agency reports is an invaluable aid.

The remaining information is obtained by correspondence and interviews, and it usually furnishes much collateral evidence on the financial and moral responsibility of the borrower.

It is not a function of the credit department of a bank, however, to analyze the information collected and pass judgment upon the loan. It merely supplies the information to the loan officers of the bank, who render the decision and assume all responsibility for the loan.

34. A FINANCIAL STATEMENT

The following is a form of financial statement recommended by the American Bankers' Association. The statement proper is

followed by a long list of questions as to the character of the individual items.

Assets	Liabilities
Cash	Notes payable
Bills receivable (net)	Accounts payable
Accounts receivable (net)	Deposits
Merchandise	Bonded debt
Land	Mortgages
Buildings	Accrued liabilities
Machinery—fixtures	Total
	Capital
	Surplus—profits
	Reserves
Total	Total

35. COMMERCIAL PAPER HOUSES AND NOTE BROKERS

The business of note brokerage arose in response to a very definite economic need. Banks in a given community frequently find that they cannot fully utilize their resources there, and wish in consequence to make loans in a wider market. Similarly, it frequently happens that borrowers in a given community are unable to procure adequate accommodations for the reason that the banks there have already made loans to their full capacity; in consequence borrowers often wish to procure funds in a wider market. The opportunity thus afforded in bringing together the banks and borrowers of different localities has given rise to a distinct type of financial middleman. A remunerative business was early developed by individuals in taking notes of merchants in one town and selling them on a commission basis to banks in another town. This business has become so important today, however, that in place of the individual note broker we now usually find the commercial-paper house, an institution quite as important in the financial world as the banks themselves. Some of these houses purchase and sell commercial paper amounting to hundreds of millions of dollars annually. Their operations are nation-wide in extent; they sell the paper of New England dealers to banks in California, and that of merchants in Portland and Seattle to the bankers of Chicago and New York. The commercial-paper broker thus serves the important economic function of adjusting or equilibrating the demand and supply of loanable funds.

The commercial-paper house may either buy the paper outright and then sell it to the bank, or it may merely offer the paper for sale

with the knowledge that it can be obtained on request. The former method is usual nowadays among the larger houses. In either case, however, the brokerage house is a mere middleman, for it is not a part of its business to loan funds; it always buys to sell on a commission basis. It may be added that the house guarantees the genuineness of the signatures to the paper, though it does not indorse the paper and thereby assume a secondary liability.

Where the commercial-paper house buys the paper outright there is much more likelihood that the broker will investigate the financial standing and general character of the borrower than if he merely secures the paper upon request, for he may find himself unable to sell the paper. This is regarded by many as an important consideration, for the banker is at a disadvantage in investigating business firms at long range. With a local customer the bank as a rule deals with persons who have been known to it for many years and whose business standing is a matter of record in the files of the credit department. But in the case of paper bought in the open market, unless the name of the borrower is particularly well known, the bank has to deal in the main with an abstract proposition in the form of the borrower's statement. The commercial-paper house, through its investigation, may therefore serve as an additional check on credit on the principle that two investigations are better than one. There is a possible danger here, however, in that each investigation may be less rigid than would be the case if the responsibility were not divided.

Where the paper is of an unknown name, it is the usual custom for the bank to buy the paper on an option of seven or ten days, during which time it may make an adequate investigation of the firm or corporation offering the paper. Such an investigation must be conducted chiefly by means of letters of inquiry to the banks and business men in the town where the borrower is located, to those in the trade who have sold goods to the party in question, and to bankers in great commercial and industrial centers where the paper is likely to be placed on the market. If the paper is not acceptable after investigation, it is returned to the commercial-paper broker, the bank of course keeping the interest earned while the paper was in its possession.

The term "commercial paper" as used in the financial world often refers, not to all paper arising out of commercial transactions, but only to paper that is handled by the commercial-paper houses. Such paper has its own special quoted rate, which often varies materially from the rate on direct loans of banks to their customers.

(3) COLLATERAL

36. LOANS ON COLLATERAL

Loans that are contracted for the purpose of investing in fixed capital, or in any way that does not give rise to funds for the payment of the loan at an early maturity, must be classed as investment rather than commercial loans. Such short-time loans may be perfectly safe if the bank is not required to pay on demand, but it is clear that a bank cannot meet demand liabilities with assets whose maturities depend upon the more or less remote incomes to be derived from investments in fixed capital. In a similar way loans granted to individuals for personal consumption or *non-commerce*, or to be used in speculative enterprises, are unsafe for a commercial bank whose liabilities are demand liabilities. Unless borrowed funds are used in the manufacture or marketing of goods, there is not a reasonable assurance that the loans will be paid at maturity. Accordingly, non-commercial loans are usually made on collateral; that is, the borrower pledges with the bank as security some valuable claim to wealth, such as bonds, stocks, or warehouse receipts. In case, then, that the loan is not paid at maturity, the bank can sell the security thus pledged and thereby keep itself in funds. In the event that the loan is paid, the collateral is returned to the borrower. This sort of loan, when properly safeguarded, is in normal times quite as liquid as commercial-paper loans. The nature and types of collateral may be indicated by reference to a few typical cases.

A bond or brokerage house is a concern which deals in investments or securities, and has nothing to do with the marketing of goods. It would be dangerous for a bank to loan to such a concern without collateral security. But such a house owns blocks of securities, stocks and bonds, which have a definite market value and which can be hypothecated with the bank as security for a loan.

A distiller has his capital invested in the manufacture of products which will be consumed only after an interval of several years, often from four to eight years after they are manufactured. These goods are stored in government bonded warehouses and negotiable receipts are issued by the warehouses to the owners of the goods. These receipts can be used as security for a loan at a bank in the same manner as stocks and bonds.

Spring eggs are placed in cold storage and negotiable receipts are issued by the warehouse. The eggs are covered by fire insurance

and are safeguarded by such means as the cold storage affords. The possibility of wide fluctuations in value render them undesirable security for commercial loans, but the warehouse receipts, with a proper margin, can be safely used as collateral for a loan.

Grain is stored in grain elevators under the supervision of the government. In Illinois, for instance, there is a State Warehouse Commission under whose supervision warehouse receipts are issued certifying that the wheat, corn, or oats is all of a certain grade. These receipts are insured against theft or loss by fire, and they pass current almost as money does. They are, therefore, well adapted to serve as security for loans at a bank, and are among the most common forms of collateral security.

It is not safe for banks to make loans to the full present market value of such securities. They may fluctuate widely in value during the life of the loan and prove inadequate in case of forced sale to cover the amount of the loan. It is necessary, therefore, to require a margin, an excess of valuable securities over the amount of the loan. This excess is, of course, returned to the borrower after the loan has been paid.

The amount of margin required will vary in proportion to the chance of sudden shrinkage in the salable value of the collateral. In the case of the best bonds ten per cent is usually regarded as a safe margin. Twenty per cent is usually required in the case of the best active listed stocks. On less active or more speculative stocks, and in common stock, a much larger margin is necessary for safety. Mixed collateral is obviously better than that of a single class of bonds or stocks. In the case of collateral, marketability is even more important than steadiness of value or ultimate safety. Collateral is not regarded as an investment. It is merely a protection for the investments in the form of loans, hence ready salability is of first importance. It is for this reason that collateral that is regularly quoted and dealt in on the exchanges is much more acceptable than non-listed securities. "The fact that a security is listed on a stock exchange, however, even the New York Stock Exchange, is not in itself evidence to warrant its being accepted as the best of collateral, any more than the fact that a security is not listed should preclude it from acceptance as collateral." Investigation of the conditions surrounding the given security is necessary in either case.

37. THE CAUSE OF THE DEVELOPMENT OF COLLATERAL LOANS IN THE UNITED STATES[1]

By EARLE P. CARMAN

National banks are fundamentally commercial banks. Their operations are restricted by law almost entirely to transactions involving short-term credits, which Congress assumed would consist mainly of commercial credits. The National Bank Act attempted to make such credits feasible by requiring the banks to keep a minimum cash reserve equal to a certain percentage of their deposit liabilities. It was assumed that this cash reserve would enable the banks to meet the unusual and extraordinary demands of depositors, and that their remaining funds could be employed in commercial credits by arranging their loans in such manner that they would mature in rotation, and thus maintain at an average level the funds required to meet the usual and ordinary demands of depositors.

In all countries commercial credits have always been preferred by banks of discount and deposit because of the fact that they automatically provide the means for their own liquidation under ordinary circumstances. In other words, the mere granting of the loan places the borrower in possession of property through the sale of which he will be able to pay the loan at maturity. And banking experience for more than a century has demonstrated that pure commercial loans are the safest of all temporary investments. Commercial loans, however, are usually made for periods of thirty, sixty, or ninety days, while the larger part of commercial bank deposits are payable on demand. Now it is obvious that a bank cannot safely loan for fixed periods of time any large percentage of funds which it may be called upon to pay out instantly unless it has some means of converting such loans into cash before maturity, if necessary.

For a century or more commercial loans in the leading countries of Europe have been instantly convertible into cash by reason of the fact that they could be rediscounted at the central banks of the countries where they originated. This instant convertibility of commercial credits, added to their inherent safety, caused them to be favored with a lower rate of interest than any other short-term credit. Thus in European countries commercial loans, or "discounts," as

[1] Adapted from "The Change in Credit Methods Made Necessary by the Federal Reserve Act," *Commercial and Financial Chronicle*, 1915, pp. 1396–97

they are called, are made at a rate of interest usually 1 per cent lower than collateral loans, however choice the collateral pledged as security.

In America, however, prior to the passage of the Federal Reserve Act, no means existed for rediscounting commercial paper, and it could only be converted into cash when it matured. The necessity of loaning a large percentage of demand deposits in such manner that they could be instantly converted into cash was no less imperative here than in Europe, and it compelled American bankers to relegate commercial credits to a secondary position and devise a means of making loans which could be converted into cash whenever desired. Consequently, demand loans secured by collateral which could be sold in the open market became the favorite method of investing demand deposits, and clearly the most logical method under the circumstances. This preference for collateral loans encouraged the creation of collateral which could be pledged to secure such loans. This collateral, however, consisting of stocks and bonds, is the product of investment banking and represents fixed or permanent property. The loans made against it, therefore, are in no sense commercial. The stock exchanges furnished constant market quotations for such collateral and provided a means of selling it instantly should the banks desire to do so. Naturally, under such circumstances, collateral loans could be secured with the greatest ease, and this encouraged speculation on the stock exchanges. Whenever this speculation expanded sufficiently to absorb the demand money readily available, the interest rate for such money advanced, and whenever this interest rate rose above the legal rate for commercial paper it naturally drew into the demand, or "call," money market funds which otherwise would have been available for commercial credits.[1]

38. CALL LOANS

Call loans are loans that are terminable at the demand of either the borrower or the bank. If the borrower wishes to repay the loan he has the privilege of doing so without waiting for a maturity date. If the bank wishes to enlarge its cash reserve it may demand immediate payment of its call loans. In practice, "on demand" means subject to call the next day, and call loans always run at least one day. There is a rule, also, that loans cannot be called or paid after 1:00 P.M., unless notice has been given before that hour.

[1] Compare chap. xi, sec. 1.—EDITOR.

The rates on call loans are subject to very wide fluctuations. Ordinarily they are lower than any other rates, ranging from 1 to 2 or 2½ per cent, but on a few occasions they have gone beyond 100 per cent. The call rate rose to 127 per cent on October 29, 1896; to 96 per cent on November 2, 1896; to 186 per cent on December 18, 1899; to 75 per cent on May 9, 1901; to 125 per cent on December 28, 1905; in 1906 to 60 per cent on January 2; to 30 per cent on April 5 and 6; to 40 per cent on September 5, and to 45 per cent on December 31.

These high rates occur at times when a dearth of loanable funds in New York coincides with both a heavy commercial demand and a great financial demand for credit. A flurry on the stock exchange will often give rise to the most insistent demand for funds for a short time.

High call-loan rates are often pointed to as evidence of a monopolistic control of credit; but as a matter of fact there is a greater profit accruing to the banks when the call rate is only 3 or 4 per cent than when it is 25 or 50 per cent. When money rates reach these high figures many corporations and large individual depositors are tempted to withdraw their funds from the banks in order to make loans to borrowers directly. This depletion of the banks' reserves at a time when money is generally tight more than counterbalances the high returns on the loans they may make on call. Because of this some banks in New York have made it a rule never to loan money on call at more than 6 per cent.

39. COLLATERAL LOANS AND STOCK EXCHANGE SPECULATION[1]

BY SERENO S. PRATT

The stock-broker executes orders for his customers on usually 10 per cent margin, but he is obliged to pay for the securities in full upon delivery. It would be manifestly impossible for any broker to do this without borrowing money from the banks. He has extended credit to his customer; he must himself get credit from the banks. For instance, a broker buys 5,000 shares of New York Central at 110, amounting to $550,000. But he executes the order for his customer on a margin of $55,000, so that he must pay the difference of $495,000,

[1] Adapted from *The Work of Wall Street*, pp. 267–74, 287, 275–78. (D. Appleton & Co., 1903.)

either out of his own capital or else borrow of the banks. Necessity compels him to go to the banks. He takes the 5,000 shares of the New York Central to the banks and offers them as collateral for a loan. If he is wise, he already has an agreement with his customers enabling him to do this. The banks lend him $440,000 on the collateral at the prevailing rate of interest. With the $55,000 from his customer and $440,000 from the banks the broker has $495,000, or $55,000 less than he must pay for the stock. This he would have to supply out of his own capital.

What is the net result? The customer is nominally the owner of 5,000 shares of stock, which he has, however, never seen, and which is actually in the possession of banks whose very names he may not know. The interest of the banks in the stock represents 80 per cent of its value; the broker's, 10 percent; and the customer's, 10 per cent. It does not follow that every transaction is exactly of these proportions of risk. The broker, in fact, may be able to obtain from the banks loans large enough to enable him, in connection with his customer's margin, to carry a transaction without the employment of much, if any, of his own capital. This example has been based upon the general rule that the margin demanded by the broker of his customer is usually 10 per cent, and the margin demanded by the banks of the broker is usually 20 per cent, the percentages in both cases varying in accordance with the character of the securities. The example serves to illustrate clearly the close intimacy existing between the money-market and the stock-market. The money-lenders are, in fact, the actual holders of the securities dealt in, and they have the largest interest at stake in the maintenance of values.

But this is not the only connection between the banks and the stock-brokers. Let us return to the example already given. The broker has bought stock for which, on delivery, he must pay $550,000. Now, before he can get any loans from the banks on this stock he must have the stock in his possession, so as to be able to use it as collateral for the loans. Before he can get it in his possession he must pay for it. His balance in the bank may not be more than $50,000. What is he to do?

Right here enters the new alliance between the banks and the brokers. It goes by the name of *certification*. The broker, in the case instanced, draws a check for $550,000 in payment for the stock. The check is sent to the bank where the broker keeps his account for certification. The cashier or paying teller indorses the check across

its face, thus certifying, not only that the signature is correct, but that the bank will pay the amount of the check on presentation and identification, or when it comes to it through the operations of the clearing-house. But it has been said that the broker has a balance of only $50,000, and here the bank is certifying to his check for $550,000. That is what is called "overcertification," and it is another form of a great system of credits on which the transactions of Wall Street stand.

Overcertification is in effect a temporary loan, and as employed in stock exchange transactions involves little risk. There are a number of Wall Street banks—not all—that do a regular business of certifying brokers' checks, but a large proportion of this business is done by the trust companies. A broker enters into a definite arrangement with one of the institutions on a basis something like this: The broker agrees to keep a daily cash balance at the bank of, say, $50,000; in return the bank agrees to certify his checks to an amount, say, of $1,000,000. While this seems startling, the practice is in reality not dangerous.

The banking institutions are very conservative in transactions of this kind. They must know all about the broker, his character, good judgment, and business methods and standing. In other words, personal character is a valuable asset in Wall Street. A man's credit in the Exchange and in the banks depends largely upon it. Then the bank stipulates, in entering upon an agreement of this kind with the broker, that, while it will certify, say, to an amount of $1,000,000 on a net daily balance of $50,000, the broker must not frequently reach that limit. Moreover, he must make his deposits at the bank as frequently as he receives checks for payment for securities delivered. He cannot wait until nearly 3:00 o'clock and then make one deposit for the day, but must deposit, it may be, six or seven times a day. The result is that while the broker is receiving the benefit of large certifications in excess of his balance, at the same time he is at frequent intervals depositing other certified checks. Deposits and certifications thus go on simultaneously.

In making these loans the banks scrutinize the collateral closely. The securities must be strictly good delivery according to the rules of the Exchange. Stocks and bonds for which there is not a constant market are generally not acceptable. The bank's protection consists in its actual holding of the collateral, and either in a note signed by the borrower in each transaction or in a continuing agreement, which its customer signs, enabling the bank to sell the securities, without

notice, in case the borrower neglects to respond to the call for payment of the loan. This agreement obviates the necessity of a new note each time a new loan is made.

The violation of the national bank law against overcertification is in most cases more technical than actual; for as soon as the broker gets his stock and arranges his loan he is able to make every check good, and by his arrangement with the bank he is bound to maintain his average daily balance of $50,000, or whatever other amount may be agreed upon. The larger the average balance the larger the certification.

But even the appearance of violation of law may be open to criticism, and therefore the national banks are gradually withdrawing from this business and other institutions are taking their place. The institutions also are beginning to adopt other systems, which have the merit of simplicity and freedom from possible illegality. Many of them are making morning loans to brokers of an amount that will cover their probable certification for the day. These loans are based on the "single-name paper" of the broker—that is to say, his individual, unindorsed note. With such a loan the broker has to his credit a deposit at the bank sufficient for the day's probable business, and technical overcertification is avoided. The practical result is the same under either system. The latter has the merit of avoiding the appearance of evil.

The amount of certification required in the operations of the stock-market is stupendous. On the deliveries made in the Stock Clearing-House transactions the certification actually required in 1901 was nearly $11,000,000,000. The Stock Clearing-House clears about 85 per cent of all the sales of stocks. The remaining 15 per cent, as well as transactions in bonds, must therefore be taken into account in any estimate of total certification required. The bonds alone added at least another billion, and it is safe to say that the business of the New York Stock Exchange exclusively, in 1901, required a certification of $14,000,000,000, or an average of about $45,000,000 daily. This was over one-fifth the average daily clearances of the Bank Clearing-House.

It may be asked, What does a bank make by certifying brokers' checks? In the example given the bank gains the use of $50,000, the required daily balance of the broker. But as the national bank is, by law, required to keep a reserve of 25 per cent, its net gain by this operation is the use of $37,500. Its profit is the interest it earns

by the loaning of that amount. If it were not profitable the bank would not engage in the business.

While the great mass of these stock exchange loans are on call, most brokers seek to secure a certain proportion of their required line of credit on time. Formerly time loans were made by months, but now by days. Thus there are thirty-day, sixty-day, and ninety-day loans. The rates for time loans are generally higher than for call, except in times of severe stringency in the money-market, and banks are commonly very conservative in making such loans for long periods. The bank's deposits being subject to withdrawal on demand, it follows that it can lock up only a comparatively small part of its resources in the form of time loans. The stock-broker, though paying more for his credit than he would on his call-loan basis, escapes the liability of having all his loans called at one time.

40. A COLLATERAL NOTE AND AGREEMENT

Due.....

$..... No..... Chicago, Illinois.....191....

.....after date for value received the undersigned promise to pay to the order of

THE NATIONAL CITY BANK OF CHICAGO

.....Dollars

at its banking house in Chicago, Illinois, with interest AFTER MATURITY at the rate of seven per cent per annum until paid and with costs of collection and a reasonable attorney fee if not paid at maturity. Presentment for payment, notice of non-payment, protest, and notice of protest are each and all hereby waived by the makers, endorsers, and guarantors, jointly and severally. Any indebtedness owing from said bank or legal holder hereof to the undersigned or to any endorser or guarantor may be appropriated and applied by said bank or legal holder on this note at any time without demand upon or notice to anyone.

SIGN
.....HERE
AND
.....BELOW

The undersigned jointly and severally hereby deposit with and pledge to THE NATIONAL CITY BANK OF CHICAGO as collateral security for the payment of the above and foregoing note and of all other liabilities of the undersigned to said bank or the legal holder of said note (whether direct or contingent, joint, or several heretofore or hereafter contracted and whensoever or howsoever acquired by said bank or legal holder) the following property, the present value of which is $.....viz:

.....

.....

.....

At any time said bank or legal holder of said note may call for additional security satisfactory to the said bank or legal holder of said note, and failure to furnish the same within twenty-four hours of such call shall make said note and all other liabilities of the undersigned, or either of the undersigned, to said bank or legal holder at once due and payable without notice or demand to anyone. Said call for additional security may be made by giving any of the undersigned oral or written notice thereof or by mailing such written notice addressed to any office, place of business, or usual abode of any of the undersigned. The undersigned and each of the undersigned hereby give said bank or any of its officers, agents, or assigns full and irrevocable power and authority to sell, assign, and deliver said property and all substitutes therefor and additions thereto, or any part thereof, at any time and from time to time, without advertising or demanding payment or giving notice of any kind to anyone, at any broker's board or public or private sale, at the option of said bank or legal holder, and said bank or legal holder may be a purchaser at said broker's board or public sale or sales. The net proceeds of said sale or sales shall be applied upon said note or other liabilities of the undersigned to said bank or legal holder whether then due or not due, as, and in, the proportion said bank or the legal holder of said note may designate, and the surplus if any shall be paid to the undersigned or to any of the undersigned. In the event of a deficiency the undersigned and each of the undersigned promise to pay such deficiency forthwith after such sale. The word 'liabilities' used herein includes a reasonable attorney fee, and all costs, charges, disbursements, and expenses, legal or otherwise, to which said bank or legal holder may be subjected by reason of enforcing collection of the foregoing note by suit or otherwise, and by reason of holding or selling any securities or collateral belonging to the undersigned, or either of the undersigned, alone or jointly with others. The said bank or legal holder of said note is hereby expressly empowered at its option to receive dividends and all stock increases and other special dividends which may be made upon collateral held hereunder. The said bank or legal holder of said note is hereby expressly empowered at any time to collect, compromise, compound, extend, or renew said pledged securities and any additions thereto and substitutes therefor or any part thereof.

SIGN
Business Address: .....HERE
AND
....ABOVE

41. INTEREST RATES IN THE NEW YORK MONEY MARKET[1]

By WILLIAM A. SCOTT

The published rates on money loaned on the New York market include *two* sets of quotations under the head "Call Loans," namely, call loans at the stock exchange and at banks and trust companies; *seven* under the head "Time Loans," namely, 30-, 60-, and 90-day, and 4-, 5-, 6-, and 7-month; and *three* under the head "Commercial Paper," namely, double-name, choice 60- to 90-days, and two varieties of single-name, prime 4- to 6-months, and good 4- to 6-months. In the weekly summaries contained in the *Commercial and Financial Chronicle* the minimum and maximum quotations for each class of loans are given. A comparison of these quotations reveals some interesting facts.

The five varieties of time loans quoted regularly often differ from each other in magnitude and range. A comparison of the minimum quotations for the last eleven years reveals the general rule that the rate tends to rise as the length of the loan increases, but to this rule there are many exceptions. For example, in 126 weeks of the period the minimum rates were identical for all classes of time loans. The 90-day and 60-day minimum rates were identical in 308 weeks, the 4-months and 90-day in 320 weeks, the 5-months and 4-months in 374 weeks, the 6-months and 5-months in 501 weeks.

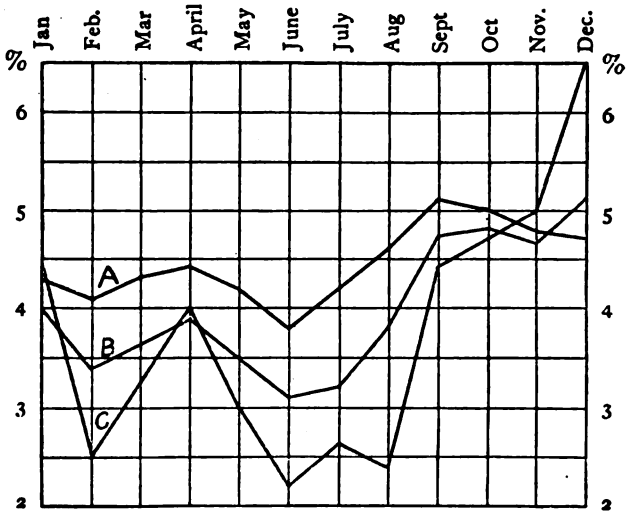
The difference between these quotations rarely exceeds one-half of 1 per cent, and the general rule seems to be that the influence of time in raising the rate grows less as the length of the loan increases. For example, there is apt to be a greater difference between the quotations of 60- and 90-day paper than between 90-day and 4-months. Likewise, there is a greater difference between 90-day and 4-months than between 4-months and 5-months paper.

The range of time loans is much less than that of call loans, being rarely above one-half of 1 per cent in a given week, and on all classes being zero during the great majority of the 572 weeks investigated. The tendency for the rate to vary during the week grows stronger as the period of the loan increases. In the case of 60-days loans, for example, there were variations in only 162 of the 572 weeks, while in that of 90-day loans there were variations in 190 weeks, and in that of 4-months loans, in 238 weeks.

[1] Adapted from "Rates on the New York Money Market, 1896–1906," *Journal of Political Economy*, XVI (May, 1908), 273–98.

During the greater part of the last eleven years the rates on all classes of time loans have averaged higher than those on call loans. This was true of the annual averages of these rates for seven of the eleven years and of the monthly averages for 86 of the 132 months of the period. The exceptions to this rule, however, are important.

A comparison of the quotations on commercial paper reveals the same kind of differences that are noted in the case of call and time loans. The minimum rate on double-name paper is usually below



A = Commercial paper, double name 60-day.
B = 60-day time.
C = Call loan.

that on single-name, but during 254 of the 572 weeks of the period it was identical with that on prime single-name paper. The difference, when one exists, is usually one fourth of 1 per cent. The range for single-name paper is usually greater than for double-name and the fluctuations are more frequent. As compared with the rates on time loans running for the same period, that on commercial paper, as a rule, averages higher. The exceptions to this rule correspond in time to those mentioned above, in which the call-loan rate averaged above that on 60-day time.

The chart above indicates the fluctuations in the following rates: the minimum rate on 60-day time loans, the minimum rate on 60- to 90-day commercial paper, and the average call-loan rate at the

stock exchange. The fluctuations of these particular rates are typical of the others in each class.

It will be observed that in all their principal and in most of their minor fluctuations these three rates move together. In degree of change the call-loan rate was decidedly the champion, the 60-day time rate, as a rule, occupying second, and the commercial-paper rate third place. The cases in which these statements do not hold true are decidedly exceptional. These facts point clearly to influences common to all the rates as the chief causes of their fluctuations. These causes are to be found in the influences which affect the relations between the supply of and demand for loanable funds in the New York market.

V

RELATIONS BETWEEN BANKS

Introduction

In the foregoing chapter the bank has been studied as a type of business institution, and as such treated by itself alone, that is, independently of other banks. In actual practice, however, a bank is never isolated in this way. In the ordinary conduct of its business every bank is in many ways brought into contact with other banks—with those in the same city or community, with those in other cities, and even with the institutions of other countries. The development of the present interrelations of banking institutions has been partly due to a desire to effect certain economies in the conduct of the banking business; but it has also been due to a very considerable degree—much more than has been generally realized—to the driving force of competition under conditions that were proving mutually disadvantageous, if not disastrous, just as the combination movement in industry was originally due in no small degree to the disastrous results of various practices inherent in competition.

Within a given city, for instance, the banks are constantly brought into relations through the daily granting of loans. The extent to which any bank may loan is dependent in part upon the extent to which other banks are loaning. And when the reserves of any particular bank are low there are numerous means by which it may increase its loaning power at the expense of, or through permission of, its competitors. One of the most important reasons for the establishment of clearing-houses appears to have been the common practice among banks of making use of each other's funds between settlement days. The clearing-house, once organized, has, moreover, come to serve the banks of a given community in a great variety of ways. Among these the clearing of checks has attracted the most attention; in fact, the clearing-house in this regard is one of the wonders of the modern world. There is something about this daily settlement of many millions of obligations in the space of a few minutes that makes a tremendous appeal to the imagination. Yet, after all, the "clearing" is merely an interesting, and relatively simple, labor-saving device,

and at the present time cannot be regarded as the most important function performed by the clearing-house.

By the "system as a whole" is meant not only the banks of a given community but those of the entire country, for though independently organized they are all inextricably bound together by mutual interests. These interrelations are discussed under two headings: first, the general relations that exist in the conduct of daily business, and, secondly, the peculiar relations that develop periodically with the ebb and flow of business activity. This periodical tension and ease in the system as a whole is, moreover, of two sorts, seasonal and cyclical, each of which has its own peculiar problems. It is in connection with these seasonal and cyclical variations, in fact, that the hardest problems of banking organization and control arise.

The banks through their clearing-house associations have endeavored to control certain competitive practices that work havoc in the system as a whole in every period of stress in the money market. To some extent they have been successful in this voluntary regulation of the machinery of banking; but in certain respects the immediate self-interest of the independent members of the system has always proved too powerful to be controlled by voluntary association. Even though many, or even the great majority, of the banks of the system be willing and anxious to sacrifice immediate gains for the sake of saving the entire structure from crumbling, they are powerless to resist the minority. When some strike out to save themselves, leaving the system as a whole to its fate, the rest must follow suit, for the system is then already crumbling, and self-preservation becomes the first law of banking.

When the strain on the system is great at one point, some relief has often been gained by calling upon banks in some other part of the country; but there are limits to this in consequence of the independent basis of organization of our banks, and for the reasons suggested above. When the strain on the entire system becomes severe, relief has frequently been sought from the federal treasury; but this, too, is a limited source of aid. Finally, gold may be imported from other countries when the supply of loanable funds is inadequate to meet the requirements of business. At times some assistance has been procured from this source, but one of the striking weaknesses of our independent banking system has been the lack of effective machinery for controlling the international flow of specie; gold has often flowed out of the country at the very time when it was needed as a basis for domestic loans.

When all means of procuring elsewhere the additional funds needed in time of monetary stringency have failed or been exhausted, there still remains the alternative of manufacturing more currency that can serve as the basis of credit expansion. But under our national banking system our currency always proved inelastic; it could not readily be increased in quantity to meet the requirements of the situation in time of stringency, nor could the quantity be easily reduced during periods of monetary ease. This inelasticity, however, was due not so much to the system of independent banking as to the nature of the security required by law for the notes issued by the national banks. Through the use of clearing-house loan certificates and the equalization of reserves the banks have at times been able to save the financial system from breaking under the strain, but generally the inability of a voluntary association to control the policy of all its members has resulted in disaster for all. Government regulation and government provision for an elastic currency appear, therefore, to be a necessity.

A. Within a Given City

(1) LOANING RELATIONS

42. RESERVES OF CLEARING-HOUSE BANKS AND TRUST COMPANIES IN NEW YORK[1]

Name of Bank	Capital	(1907) Week Ending† Sept. 14		(1913) Week Ending† August 30	
		Surplus Reserve	Percentage Reserve	Surplus Reserve	Percentage Reserve
Bank of New York National Banking Association	$ 2,000,000	$ 337,800	27.1	$ 166,750	25.9
Bank of the Manhattan Company	2,050,000	740,000	27.6	710,500	27.0
Merchants National Bank	2,000,000	219,900	26.0	101,000*	24.4
Mechanics and Metals National Bank	6,000,000	89,500	25.4	40,000*	25.0
Bank of America	1,500,000	76,500	25.3	66,250	25.2
National City Bank	25,000,000	3,924,100	27.9	2,463,000	26.2
Chemical National Bank	3,000,000	677,800	27.6	247,000	26.0
Merchants Exchange National Bank	600,000	337,000*	19.5	14,500*	24.7
Gallatin National Bank	1,000,000	21,400	25.4	.....	.....
National Butchers' and Drovers' Bank	300,000	47,500*	22.5	30,800	26.8
Greenwich Bank	500,000	52,800*	24.1	26,300	25.2
American Exchange National Bank	5,000,000	761,000*	21.0	156,300	25.3
National Bank of Commerce	25,000,000	1,825,000	26.6	2,115,300	26.7
Mercantile National Bank	3,000,000	326,000*	22.4	.....	.....
Pacific Bank	500,000	446,700*	23.6	2,500	25.0
Chatham and Phenix National Bank	2,250,000	13,100	25.1	40,500	25.2
Peoples Bank	200,000	39,300	26.6	25,000	26.0

* Deficit. † Average for the week.

[1] Data taken from the *Commercial and Financial Chronicle.*

Name of Bank	Capital	(1907) Week Ending Sept. 14		(1913) Week Ending August 30	
		Surplus Reserve	Percentage Reserve	Surplus Reserve	Percentage Reserve
Hanover National Bank	3,000,000	1,131,000	26.7	174,000*	24.7
Citizens' Central National Bank	2,550,000	254,800	26.2	235,300	26.1
National Nassau Bank	1,000,000	311,900*	17.0	34,200*	24.7
Market and Fulton National Bank	1,000,000	43,200	25.6	353,800	28.8
Metropolitan Bank	2,000,000	256,400*	22.7	56,200*	24.6
Corn Exchange Bank	3,000,000	234,500	25.5	303,500	25.4
Importers and Traders National Bank	1,500,000	168,000*	24.2	23,000	25.0
National Park Bank	5,000,000	841,300	26.0	169,800	25.1
East River National Bank	250,000	48,900*	20.8	67,300	29.6
Fourth National Bank	5,000,000	252,000	26.3	251,000	25.8
Second National Bank	1,000,000	17,500*	24.8	26,800	25.4
First National Bank	10,000,000	542,100	25.7	848,800	25.8
Irving National Exchange Bank	4,000,000	276,500	26.9	228,800	25.5
Bowery Bank	250,000	132,200*	21.2	15,200*	24.5
New York County National Bank	500,000	222,900*	21.3	98,000*	23.8
German-American Bank	750,000	37,000*	23.9	76,800	27.0
Chase National Bank	5,000,000	540,400	25.9	5,170,000	29.6
Fifth Avenue Bank	100,000	158,600	26.5	197,500	26.4
German Exchange Bank	200,000	52,800*	23.6	14,000*	24.5
Germania Bank	200,000	107,600	28.3	33,800	25.5
Lincoln National Bank	1,000,000	82,600*	24.4	62,500	25.4
Garfield National Bank	1,000,000	3,100*	25.0	216,300	27.4
Fifth National Bank	250,000	14,700*	24.4	14,000	25.3
Bank of the Metropolis	1,000,000	510,200*	19.0	55,800	25.5
West Side Bank	200,000	46,500	26.0	5,300	25.1
Seaboard National Bank	1,000,000	157,300	25.8	617,000	27.3
Liberty National Bank	1,000,000	72,700*	24.3	63,800	25.2
New York Produce Exchange Bank	1,000,000	83,700	26.1	57,300	25.5
State Bank	1,000,000	1,060,000*	18.1	8,800	25.0
Security Bank	1,000,000	.....‡	.....	9,200*	25.0
Coal and Iron National Bank	1,000,000	.....‡	.....	59,000	26.0
Union Exchange National Bank	1,000,000	.....‡	.....	16,500	25.4
Nassau National Bank, Brooklyn	1,000,000	.....‡	.....	24,000	25.1
Total	$133,650,000	$6,918,700	25.6	$1,385,746	26.0
Brooklyn Trust Company	$ 1,500,000	.....§	.....	$ 279,750	15.0+10.2‖
Bankers Trust Company	10,000,000	.....	.....	1,364,500	15.0+10.1
U.S. Mortgage and Trust Company	2,000,000	.....	.....	2,830,000	15.0+13.6
Astor Trust Company	1,250,000	.....	.....	660,000	15.0+12.6
Title Guarantee and Trust Company	5,000,000	.....	.....	2,046,500	15.0+16.7
Guaranty Trust Company	10,000,000	.....	.....	15,022,000	14.2+20.5
Fidelity Trust Company	1,000,000	.....	.....	218,750	15.6+10.6
Lawyers' Title Insurance and Trust Company	4,000,000	.....	.....	244,750	15.4+15.1
Columbia-Knickerbocker Trust Company	2,000,000	.....	.....	819,500	15.0+10.8
People's Trust Company	1,000,000	.....	.....	423,500	14.7+11.4
New York Trust Company	3,000,000	.....	.....	1,251,250	15.0+12.5
Franklin Trust Company	1,000,000	.....	.....	363,000	16.0+11.2
Lincoln Trust Company	1,000,000	.....	.....	124,500	15.1+10.1
Metropolitan Trust Company	2,000,000	.....	.....	1,065,500	15.0+16.1
Broadway Trust Company	1,500,000	.....	.....	777,500	15.0+14.5
Total	$46,250,000	.....	.....	$24,187,750	14.8+14.1

* Deficit.
† Not organized in 1907.
‖ These include deposits in clearing-house banks.
§ Trust company figures not obtainable for 1907.

43. NATIONAL BANKS AND TRUST COMPANIES[1]

By O. M. W. SPRAGUE

In times of moderate strain the clearing-house banks of New York were often enabled by means of the trust companies to make a better showing in the weekly bank statements than would otherwise have been the case. As the business of the trust companies was chiefly local they were not subject to seasonal withdrawals of cash, and their lending power was, therefore, more nearly the same throughout the year. An increase in rates for loans in New York was usually followed by a shifting of loans from banks to trust companies. By this means the deposit liabilities of the clearing-house banks were reduced, thus enabling them to preserve the cherished 25 per cent reserve ratio. The resort to this device was, of course, greatly simplified through the close affiliations between some of the large banks and trust companies, and it was so much in evidence during the years before the crisis of 1907 that the surplus reserve became quite as much an object of mirth as of confidence.

44. INTERDEPENDENCE OF BANK RESERVES[2]

By VICTOR MORAWETZ

The character and sufficiency of bank reserves must be considered with regard to the banking situation as a whole as well as with regard to the affairs of each separate bank.

Thus a deposit claim of one bank against another bank—that is to say, its right to call upon such other bank for the payment on demand of a sum of money—may be treated as a reserve, if we leave out of consideration the position of the banks collectively and the general banking situation. But obviously the liability of a bank to pay money to another bank would not increase the collective ability of all the banks to pay all their depositors and would not in the least strengthen the general financial situation. When a particular bank strengthens its own reserve by drawing upon its deposit with another bank, it weakens to the same extent the reserve of the bank upon which it draws.

[1] Adapted from *Crises under the National Banking System*, pp. 227–28. (National Monetary Commission, 1910.)

[2] Adapted from *The Banking and Currency Problem in the United States*, pp. 16–19. (North American Review Publishing Co., 1909.)

Similarly, bank-notes may be treated as a reserve if the position of the bank holding such notes be considered without regard to the general banking situation; but, having regard to the situation of all the banks, it is clear that such notes are not good as a reserve. A bank note is merely a promissory note payable in money on demand. Bank "A" holding notes of bank "B" may consider such notes as good as money so long as bank "B" is solvent and pays its obligations on demand; but it is obvious that when bank "A" obtains money from bank "B" by requiring it to redeem its notes, the reserves of bank "B" will be diminished exactly as much as the reserves of bank "A" are increased. That, having regard to the entire banking situation, bank notes are not a good reserve becomes apparent upon considering the case of several banks exchanging their notes, and each bank calling upon the others to pay their notes in lawful money.

As long as financial conditions are normal, call loans may be regarded as a good reserve, because a bank can obtain cash promptly by calling such loans; but call loans do not strengthen the general banking situation, and, therefore, when there is a severe money stringency, they are not good as a reserve. When a bank calls a loan, the borrower either must borrow the same sum from some other bank, although required to pay a very high rate of interest, or he must obtain the required sum by selling property, and in that event the purchaser usually must draw the money from the banks. Therefore when a bank strengthens its reserve by calling a loan, the practical effect is to draw the money from other banks and *pro tanto* to weaken their reserves.

For similar reasons, as long as financial conditions generally are not strained, bonds or other securities that have a ready market may serve as a reserve, because by selling such bonds or securities a bank can obtain money; but reserves of that character do not strengthen the general credit situation and are not available when most needed by the banks that hold them. When a bank sells securities in order to obtain lawful money to pay its depositors, the purchaser usually must draw the purchase price from the banks. The selling bank thus would obtain lawful money by drawing indirectly from the reserves of other banks. Therefore when there is a general money stringency, bonds or other salable securities are not good reserves. During the recent panic many of the banks and trust companies, including some of those which failed, owned large amounts

of high-class securities, but this did not help them or relieve the general situation, as the combined lawful money reserves of the banks and trust companies were inadequate.

Deposits by banks in other banks, bank notes, call loans, and bonds or other securities are not, properly speaking, bank reserves at all. They are only the means of obtaining reserve money for particular banks by drawing this money from the reserves of other banks. In considering the general financial situation, deposits of banks, bank notes, call loans, and securities held by the banks should be disregarded. For the ultimate payment of bank-deposit liabilities the only true reserve is legal-tender money.

45. EARLY SETTLEMENT OF BALANCES BETWEEN BANKS[1]

BY JAMES G. CANNON

Prior to the establishment of the New York Clearing-House in 1853 the method of settling balances between banks was a very costly and cumbersome process. In the daily course of business each bank received checks and other items on each of the other banks, which had to be presented for collection. All such items on hand were assorted and listed on separate slips at the close of the day, and items coming in through the mail on the following morning were added at that time. To make the daily exchanges each bank sent a porter with a book of entry, or passbook, together with the items to be exchanged.

The receiving teller of the first bank visited entered the exchanges brought by the porter on the credit side of his book and the return exchanges on the debit side, who then hurried away to deliver and receive in like manner at the other banks. It often happened that five or six porters would meet at the same bank, thereby retarding one another's progress and causing much delay. Considerable time was consumed in making the circuit. Hence, the entry of the return items in the books of the several banks was delayed until the afternoon, at an hour when the other work of the bank was becoming urgent.

A daily settlement of the balances was not attempted by the banks, owing to the time it would have required, but they informally agreed upon a weekly adjustment, the same to take place after the exchanges

[1] Adapted from *Clearing-Houses*, pp. 127–31. (National Monetary Commission, 1910.)

on Friday morning. At that time the cashier of each bank drew a check for each of the several balances due it and sent a porter out to collect them. At the same time the porter carried coin with which to pay balances due by his bank. After the settlement had been made, there was a meeting to adjust differences and bring order out of chaos.

An old bank officer, in describing the inconveniences and defects of this system, says that some of the more speculative banks took advantage of the weekly method of settlements by carrying a line of discounts to an amount greater than their legitimate resources would allow. Thus a bank would manage to carry a small debit balance of $2,000 or $3,000 with thirty or more institutions, making a total debit balance of, say, $100,000 on which it discounted paper. It was the practice to borrow enough on Thursday to make the settlements on Friday, and the return of the loan on Saturday threw it again into the debtor column. Virtually, therefore, the weekly settlements were nominal only, and to show that there was no attempt at economy of time and labor in making them, it is only necessary to say that the cashier drew a check for every balance due him, whereas a draft on one bank in favor of another might have settled two accounts at once.

The banks were at liberty to draw on each other for their credit balances without waiting for the settlements on Friday, and hence, when specie was needed, this was not infrequently done. But so far did many of the banks extend their loans and discounts that a single small draft by one bank on another would induce a general drawing and involve them all in confusion and virtual war on each other. Three o'clock would arrive, with the line of drafts incomplete, thus enabling the debtor banks ofttimes to add $50,000 to their specie, whereas creditor banks would find themselves at the close of the day depleted in perhaps twice that sum.

46. LOANS OF NEW YORK BANKS AND CLEARING-HOUSE BALANCES

Each bank in New York attempts to keep at all times a close adjustment of loans and reserves, that is, to prevent a decided fluctuation in the ratio. This is accomplished through an expansion or contraction of call loans, and the banks of the metropolis even go so far as to anticipate the balances resulting from the daily settlements at the clearing-house. Call loans are made in two ways: at each bank as a lending institution, and at the "money post" on the floor of the Stock Exchange, where the representatives of the banks

meet with the stock-exchange brokers each business day at 11 o'clock. By that time each bank has heard the returns from the clearing-house settlement and knows whether its reserve for the day has increased or decreased. It can, therefore, calculate whether it can expand its loans or whether it must "call" some of its demand loans in order to replenish its reserve. Each broker also usually knows at that hour whether he has a surplus or needs to borrow. For about an hour, therefore, banking operations are active on the stock exchange.

About two o'clock there is usually another bustle of activity in consequence of unexpected inflows and outflows of bank funds. Thus an almost constant adjustment is effected, in so far as the conditions of the market as a whole permit.

(2) CLEARING-HOUSES

47. THE ORIGIN OF CLEARING-HOUSES IN THE UNITED STATES[1]

BY JAMES G. CANNON

On August 23, 1853, 16 presidents, 1 vice-president, and 21 cashiers, representing 38 banks, assembled in the directors' room of the Merchants' Bank, New York, and appointed a committee with instructions to prepare a plan "to simplify the system of making exchanges and settling the daily balances." On September 13 the plan proposed was adopted, to become effective on October 11. Accordingly, on the appointed day, the representatives of the banks, members of the association, met in a room which had been procured in the basement at No. 14 Wall Street, and made the first exchanges. The total clearings on that day were $22,648,109.87, and the balances were $1,290,572.38. These clearings have since been eclipsed by over $30,000,000 in the totals of a single bank.

The clearing system in America was thus fairly launched, and from that time forth its success exceeded the expectations of even its most ardent projectors. The association consisted at that time of 52 banks, banded together for their common good, which, as they then conceived, consisted solely in the exchange of items and settlement of balances at a uniform time and place. For nearly a year the operations were conducted without a constitution. The adoption of such an instrument was opposed, on the ground that it was not

[1] Adapted from *Clearing-Houses*, pp. 133–35; 263–65. (National Monetary Commission, 1910.)

needed and might lead to a dangerous concentration of power in the hands of a few managers, who might use it for personal aggrandizement or for the exercise of an arbitrary supervision. But the need of fixed rules of some sort for their guidance became more and more urgent, and on August 1, 1854, a constitution was adopted.

This instrument, with the changes that have been made from time to time by the adoption of amendments and resolutions, is in force at the present day.

Following the lead of New York all the principal cities of the country have organized clearing-houses until at the present time there are considerably more than a hundred.

48. THE PRINCIPLE INVOLVED IN "CLEARING"[1]

By CHARLES F. DUNBAR

To illustrate the working of the Clearing-House system, we will suppose the case of six banks carrying on business in the same town. On a given morning we will suppose the messengers of these banks to meet at the Clearing-House, each bringing the checks received by his bank in deposit on the previous day, as follows:

No. 1, checks on No.	2....	$ 6,500	No. 4, checks on No.	1....	$ 8,750
" " " "	3....	9,200	" " " "	2....	4,700
" " " "	4....	7,100	" " " "	3....	6,740
" " " "	5....	6,250	" " " "	5....	5,820
" " " "	6....	4,500	" " " "	6....	5,140
		$33,550			$31,150
No. 2, checks on No.	1....	$ 7,800	No. 5, checks on No.	1....	$ 8,740
" " " "	3....	4,100	" " " "	2....	4,620
" " " "	4....	5,760	" " " "	3....	9,250
" " " "	5....	6,340	" " " "	4....	7,680
" " " "	6....	5,870	" " " "	6....	5,940
		$29,870			$36,230
No. 3, checks on No.	1....	$ 6,750	No. 6, checks on No.	1....	$ 3,700
" " " "	2....	4,270	" " " "	2....	4,100
" " " "	4....	5,900	" " " "	3....	6,740
" " " "	5....	6,400	" " " "	4....	9,250
" " " "	6....	5,940	" " " "	5....	7,850
		$29,260			$31,640

[1] Adapted from *The Theory and History of Banking*, pp. 52–53. (G. P. Putnam's Sons, 1891.)

The sum of all the checks brought in is $191,700. If, now, we credit each bank with the checks which it presents against the others and charge it with the checks presented by them against it, we shall find that No. 1 is charged with $35,740 and credited with $33,550, that No. 2 is charged with $24,190 and credited with $29,870, and so for the others, and, therefore, that

No. 1 owes a balance of	$ 2,190	
No. 2 *is owed* " "		$ 5,680
No. 3 owes " "	6,770	
No. 4 owes " "	4,540	
No. 5 *is owed* " "		3,570
No. 6 *is owed* " "		4,250
	$13,500	$13,500

If, then, the debtor banks, Nos. 1, 3, and 4, pay into the Clearing-House the sums due from them, amounting to $13,500, and the Clearing-House pays out to the creditor banks, Nos. 2, 5, and 6, the sums due them, of like amount, the result will be that every bank will, in effect, have collected payment of all the checks which it had received and will have made payment of all the checks drawn against it. This settlement of checks, amounting in all to $191,700, will have been made by the payment of $13,500, and transactions apparently involving thirty separate demands, each bank being the creditor of five others, will have been settled by a series of additions made at a central office, followed by three payments to and three payments from a common fund.

49. ORGANIZATION AND OPERATION OF CLEARING-HOUSES[1]

By JAMES G. CANNON

The government of a clearing-house association in the United States is, theoretically, vested in a president, vice-president, secretary, treasurer, manager, and a clearing-house committee, sometimes termed "committee of management" or "executive committee." Not every association, however, is as completely officered as this; in fact, there are many associations that do not have the full list of officials named. A president, a manager, and an executive committee,

[1] Adapted from *Clearing-Houses*, pp. 28–46. (National Monetary Commission, 1910.)

however, are found in the organization of nearly every clearing-house association, for these functionaries are practically indispensable.

The clearing-house association holds an annual meeting for the purpose of electing officers and committees and for the transaction of other business. The quorum is usually fixed at a majority of all the associated banks. In some instances, however, it is fixed at two-thirds, and in a few cases even as low as one-third, of all the members. Sometimes a specified number is designated as constituting a quorum. Each bank is expected to be represented at the annual meeting by one or more of the officers, but is usually allowed only one vote.

The rules regulating the kinds of matter to be cleared are by no means uniform. A number of organizations specify in their articles of association what shall be considered proper clearing matter. With but two exceptions the exchanges passing through the clearing-house are confined to items drawn upon members or upon non-members clearing through members. That is to say, checks and drafts received by a bank member of a clearing-house in any city drawn upon another member of the same clearing-house, from whatever source the checks may have been received, are liquidated through the clearing-house; but checks and drafts received by a member of a clearing-house drawn upon some bank located at a distance, and not a member, nor clearing through a member, are regarded as improper matter for clearing.

The number of messengers required to transport the exchanges to and from the clearing-house varies widely in different cities. When the business is light, as in some of the smaller cities, one person acts as both messenger and settling clerk, while in some of the larger cities the exchanges of some of the banks are so heavy that four or five messengers are necessary to transport them.

Checks are taken to the clearing-house bound together with rubber bands or inclosed in large envelopes, the items that go to each of the members being kept separate. If the bulk is not too great, they are often carried in the hand, but it is customary in the large cities to transport them in leather bags or cases. The usual rule is that immediately upon his arrival at the clearing-house the settling clerk delivers to the manager, or the assistant manager, a ticket containing the amount of the items brought from his bank.

Two methods of delivering items in the exchange room are in vogue. In the one case they are delivered by all the clerks simultaneously; in the other by each clerk as soon as he arrives at the

clearing-room; but the exchanges must all be made before a specified time.

When the clerks begin the exchanges at the same time, they all start upon the signal from the manager with their items on their arms or in bags or cases strapped over the back, and proceed in the same direction, passing along the desks until they have deposited all their paper. In the large cities, where the clerks are numerous, order and method are necessary in delivery to prevent confusion and to save time. But in small cities, where the clerks usually deliver their items as soon as they arrive, more liberty is allowed in personal conduct; also by this method an opportunity is afforded to the less proficient clerks to arrive early and list their items as fast as they are delivered to them from the other banks.

When the clearings have been made, the next step is for each settling clerk to determine the amount of the balance of his own bank, which is found by taking the difference between the amount brought to the clearing-house and the amount taken away. A certain amount of time is allowed for the proof. In some cases the settling clerks do not remain until the proof is made, but leave for their respective banks as soon as they make out their tickets for the amounts brought, amounts received, and balances. If the manager of the clearing-house, or his assistant in charge of the proofsheet, finds, after he has made all the entries and additions, that his work does not prove, he first determines whether the error was made by one of the settling clerks or by himself. If by one of the clerks, it is usually discovered in a short time at the bank, whereupon the latter reports the error to the manager at the clearing-house either by messenger or by telephone. If the bank fails to report the error in due time, the manager takes the debit and credit slips and finds it.

The speed with which the business of a clearing-house is transacted seems almost incredible. The actual time required to make the exchanges varies from one and one-half minutes to ten minutes. When the exchanges are made simultaneously, the time varies, as a rule, in proportion to the number of members. In view of the shortness of time required to make its exchanges, the New York Clearing-House affords, perhaps, the best example in existence of the success of modern business methods as compared with the old way of doing things. The clearances exceed on the average $300,000,000, and yet this enormous amount of paper is exchanged between the banks in ten minutes, and often in less time.

Clearing-houses may be divided into two classes with reference to the funds used in the settlement of balances: first, those clearing-houses which make their settlements on a cash basis, and, second, those clearing-houses which make their settlements on some other basis.

About 17 per cent of the clearing-houses in the United States settle their balances entirely on a cash basis. Among the clearing-houses that do not settle with cash no less than five different methods of settling are in vogue. They are (1) by manager's check on debtor banks given to creditor banks; (2) by borrowing and loaning balances without interest; (3) by borrowing and loaning balances with interest; (4) by the use of one or more of four forms of certificates, viz., gold and currency depository certificates, United States assistant treasurer certificates, and clearing-house loan certificates; and (5) by draft on another city. These methods, however, are often found in combination.

Where manager's checks are used the creditor banks send clerks to the clearing-house to receive the manager's checks. These may be taken to the debtor banks and cashed, exchanged for cashier's checks or drafts on other cities, or sent through the clearings on another day.

Clearing-house certificates are of two kinds: those issued upon the deposit of gold coin (and in New York City and Boston on gold and silver certificates and legal-tender notes) and those issued upon the deposit of collateral securities. The former are employed in ordinary times solely as a method of economizing time and labor and reducing risk in handling large sums of money. The latter are employed in times of financial disturbance or panic, and although both are intended for use solely in the settlement of balances at the clearing-house, the circumstances that call them forth, the results effected by their use, and the part they play in banking economy have little or nothing in common. The certificates issued upon the deposit of gold, etc., are termed "Clearing-house certificates," and those issued upon the deposit of collateral security are very properly termed "Clearing-house loan certificates."[1]

Generally speaking, about 40 per cent of the clearing-houses of the United States use drafts on other cities in paying their balances. About 30 per cent settle by manager's check and about 25 per cent settle by cash alone, the remaining 5 per cent settling by a combination of two or more of the foregoing methods.

[1] See Selection No. 94.—EDITOR

50. SPECIAL FUNCTIONS OF CLEARING-HOUSES[1]

BY JAMES G. CANNON

The tendency has been marked, especially in recent years, to include within the legitimate field of clearing-houses all questions affecting the mutual welfare of the banks and the community as a whole. The most important of the special functions of a clearing-house are (*a*) the extending of loans to the Government, (*b*) mutual assistance of members, (*c*) fixing uniform rates of interest on deposits, (*d*) fixing uniform rates of exchange and of charges on collections, (*e*) the issue of clearing-house loan certificates, and (*f*) examining individual banks.

a) Less than a decade after the inauguration of the clearing-house system in America the Civil War broke out and threw the Government into a condition of acute financial embarrassment. The ordinary sources of income were insufficient to meet the demands of the approaching crisis. Thereupon the banks, members of the clearing-houses in New York and Boston, responded with practical unanimity to the call of the Government for loans, by which the latter was enabled to put armies into the field and maintain the struggle for national unity.

b) In times of panic it is not infrequently the case that a bank in good standing becomes temporarily embarrassed. Unfortunate report may cause a run on it, and, being unable to call in a sufficient amount of its outstanding loans to meet the demands of its frightened depositors, it must either secure a loan or fail. In such an emergency the other members of the clearing-house are usually willing to render assistance until the strain is relaxed. To secure such aid, however, a bank must be sound in its management and of good repute in every respect. Otherwise the members of the clearing-house are likely to decline assistance, being quite willing to get rid of a weak and ill-managed member.

c) Another of the special functions of a clearing-house is the fixing of uniform rates of interest on deposits, and in a few instances on loans. In some associations the legality of such action is still regarded as a moot question, and hence they are reluctant to enforce such a rule. Other associations, however, have not hesitated to regulate the members on these points. As early as 1881 rates of interest were agreed

[1] Adapted from *Clearing-Houses*, pp. 11–22, 139–49. (National Monetary Commission, 1910.)

upon in Buffalo, and were observed practically without friction or violation for some nine years thereafter. They were broken at last only because of their non-observance by new banks, which at the outset refused to become members of the clearing-house organization.

The Sioux City Clearing-House Association has fixed a maximum rate of interest of 2 per cent per annum, to be paid by the members upon bank accounts or balances, and on time certificates of deposit 3 per cent. Without any special clearing-house regulation on the subject, it is generally understood by the banks that 6 per cent is the minimum rate that shall be charged on first-class loans, and that the rate shall range from that to 8 per cent, according to the character of the risk.

At St. Joseph, Missouri, the clearing-house rules provide that interest (not naming the rate) may be paid on balances to banks, bankers, trust companies, the St. Joseph Cattle Loan Company, deposits of the Government, State, county, city, etc., or to individuals, firms, corporations, not located or doing business in St. Joseph or Buchanan County, but that no interest may be paid to individuals, firms, or corporations located or doing business in St. Joseph or Buchanan County, except by unanimous consent. Trust companies may pay interest on checking accounts at the rate of 2 per cent per annum, while savings banks, trust companies, and savings departments of commercial banks may pay interest on savings accounts, at a rate not to exceed 3 per cent. Interest is not allowed on demand or time certificates for a less period than six months, and then at the rate of three per cent per annum. No interest is allowed for any fractional part of a six months' period.

The banks of Savannah, Georgia, under clearing-house regulation, may pay interest not to exceed 3 per cent on individual accounts, and then only when the balances in such accounts exceed $25,000. On bank balances without limitation as to amount they may pay not to exceed 3 per cent.

The question of clearing-house regulation of the rates to be charged on local loans has been considered by many associations in different parts of the country, but, generally speaking, has not met with much favor. It is quite evident that on this one point the individual banks are jealous of their prerogative to loan their money at whatever rate they choose. The nearest approach to clearing-house rate regulation of loans seems to be in the arrangement in vogue at Chattanooga, Tennessee, by which the minimum rate to be charged

by the banks in making their loans is determined from time to time by a committee appointed by the associated banks for that purpose.

d) Still another of the special functions of a clearing-house is the fixing of uniform rates of exchange and of charges on the collection of items. In 1881, the year in which the clearing-house in Buffalo was organized, a prominent banker in that city succeeded in uniting the banks on rates. The promoter of the enterprise, though well known for rate cutting, was a successful banker and had always been able to meet competition successfully. Hence, when he proposed a uniform-rate system the other banks were only too glad to consider his propositions. Meetings were accordingly held, schedules of charges were drawn up, and rules were formulated for the guidance of the banks. In a short time a schedule was adopted and put into successful operation. The rates were not high, but were arranged so as to do justice, as far as possible, to the banks on the one hand and the depositors on the other, and so satisfactory was the new régime that it remained in harmonious operation for nearly nine years. It is said that the increase in profits or collections, to the twelve banks interested, over the former method of doing business free of charge, paid the dividends of all the banks each year, and whatever profit was made on loans and discounts was used to build up the surplus. But the formation of new banks finally played havoc with the uniform-rate system. While it lasted it was made obligatory upon every bank, but in 1891 the newly organized banks began to cut on rates. The clearing-house members endeavored to induce the new banks to join the association, but did not at first succeed. It was regarded as unjust to the member banks to hold them to the existing agreement when their competitors were free, and accordingly, in June, 1891, the schedule of rates was made no longer obligatory.

In 1895 the Rochester (New York) Clearing-House Association put into operation a schedule of collection charges, and the results have been most satisfactory. All of the banks were in favor of it, though there was at first some complaint on the part of customers.

Up to a comparatively short time ago no other association in the country had approached that of St. Joseph in the detail with which it worked out a system of regulations governing the conduct of its members in regard to making collections. In the past few years, however, considerable attention has been given to the subject by the

several associations, with the result that between 50 and 60 per cent of all the clearing-houses in the United States are now working under comprehensive rules and regulations covering the collection of items which come under this head.

e) One of the most important of the special functions of the clearing-houses, to which attention may be briefly called, is the issue of clearing-house loan certificates in times of panic. By this means, in some cases, the specie reserves of the clearing-house members have been combined in a way to become a common fund, so that any bank that experienced an unusual demand for specie was supported by the combined reserves of all the banks. The bank thus assisted secures the other members against loss by depositing with a committee appointed for the purpose of receiving them its securities in the shape of stocks, bonds, and bills receivable.[1]

f) A recently developed function of clearing-houses is the examination of banks in the association in an effort to supplement the work of federal and state bank examiners in their efforts to reduce bank failures to a minimum. Chicago was the pioneer in the field, its system of clearing-house examinations being inaugurated on June 1, 1906, as a direct result of the failure of the Walsh banks the preceding autumn.

The examinations extend to all the associated banks of Chicago and to all non-member institutions. The examinations include, besides a verification of the assets and liabilities of each bank, so far as is possible, an investigation into the workings of every department, and are made as thorough as is practicable. After each examination the examiner prepares a detailed report in duplicate, describing the bank's loans, bonds, investments, and other assets, mentioning specially all loans, either direct or indirect, to officers, directors, or employees, or to corporations in which they may be interested. The report also contains a description of conditions found in every department. One of these reports is filed in the vaults of the clearing-house, in the custody of the examiner, and the other is handed to the examined bank's president for the use of its directors. This system has spread rapidly and is now in vogue in more than a score of the larger cities of the country. Everywhere it appears to have been eminently successful.

[1] See Selection No. 94.—EDITOR.

Various clearing-houses in different parts of the country have incorporated into their rules and regulations certain special features, some of which are worthy of mention. For instance, at Altoona, Pennsylvania, it is the duty of the associated members to report to the secretary of the association any flagrant violation of commercial or financial integrity on the part of anyone having business relations with them. Furthermore, the solicitation of accounts of other members is prohibited, and any members having accounts of the same depositors shall have the right of ascertaining, each from the other, the extent and character of the loans made to such depositor. It is also provided that when a depositor of any member bank applies to another member for a loan the member so applied to shall have the right to ascertain from the applicant's bank whether the loan had been previously offered there and, if refused, the reason for refusal.

At Philadelphia, Pennsylvania, Chester, Pennsylvania, and Wilmington, Delaware, it is provided that the associated banks shall report at once to each other the names of individuals, firms, or corporations whose accounts have been closed on account of overdrawing, depositing worthless checks, or otherwise defrauding them.

The associated banks of Minneapolis, by special agreement, but not by constitutional provision, have appointed an advertising committee, of which the manager of the clearing-house is the chairman, to which is submitted all general schemes of advertising. The schemes are submitted in writing to the committee by the solicitor and action taken thereon. Many of these propositions are rejected, and what is known as clearing-house advertising appears only in the best mediums. The claim is made that this concerted action serves to secure much better rates and does not preclude any bank from placing advertisements in any other direction it desires. Chattanooga, Tennessee, and Fort Wayne, Indiana, also have made provision regulating the placing of advertisements by their member banks. The regulations of the Portland (Maine) Association state that no member shall, by advertisement, circular letter, or publication, reflect unfavorably upon the responsibility of another member.

The constitution of the Rochester Clearing-House Association provides that members are prohibited from offering a higher rate of interest to induce a customer to change his account from one bank to another or as an offset against collection charges.

51. CLEARINGS OF NON-MEMBER BANKS IN CHICAGO[1]

By JAMES G. CANNON

Besides the regular members there are about forty non-member banks clearing through the Chicago Clearing-House. In other words, there is an average of two to each member. Most of those clearing in this way are private banks and trust companies.

Up to January, 1907, the Chicago Clearing-House exacted no compensation for permitting outside institutions to clear through its members. About that time an amendment was added to the constitution making it imperative for a member bank to first obtain the consent of the clearing-house committee before it could clear for an outside institution, and further obligated such a member to pay as follows: For each bank having a capital of—

More than	$ 25,000	and less than	$ 50,000	$150
More than	50,000	and less than	200,000	250
More than	200,000	and less than	400,000	350
More than	400,000	and less than	600,000	450
More than	600,000	and less than	1,000,000	600
Exceeding	1,000,000			700

The amendment further provided that such banks and bankers should, under proper authority, consent to the same examinations and render the same statements of their condition as are required of the members of the association, and be subject to all such rules and regulations in matters of common interest arising from or affecting relations with banks in other localities, and the fostering of sound and conservative methods of banking, as have been or may from time to time be adopted by the association, and sign an agreement so to do in such form as the clearing-house committee may require.

B. The System as a Whole

(1) GENERAL RELATIONS

52. COLLECTING OUT-OF-TOWN CHECKS[2]

By JAMES G. CANNON

It is evident that a bank receives from its customers in the daily course of business checks drawn on banks in distant towns and cities, but before a bank can realize any return from such checks it must

[1] Adapted from *Clearing-Houses*, pp. 288–89. (National Monetary Commission, 1910.)

[2] *Ibid.*, pp. 59–78.

collect them. That is, it must send them to the banks upon which they are drawn, or to some near-by bank which will act as its agent, for payment. For the purpose of collecting or clearing these foreign checks the clearing-house is not available. Checks and drafts received by a member of a clearing-house drawn upon some bank located at a distance, and not a member, nor clearing through a member, are regarded as improper matter for clearing.

The charges made by banks for exchange are usually extremely vexing to customers, and to the layman appear indeed quite unreasonable. It is obvious, however, that the banks are asked to perform an important service for their customers. When A, who lives at a distance from a financial center, buys a bill of goods from B, living in the city, and sends a check drawn on his local bank for payment of the amount, he subjects someone to the expense of collecting the check, and, further, someone is out the use of the money until the collection has been made.

For instance, a check on a bank in Massillon, Ohio, presented for payment in New York City might be sent to a bank in Cleveland, which in turn would send the check to the Massillon bank for collection. In an actual case like this two checks had to be drawn, four letters had to be written, 8 cents in postage stamps were used, and seventy-five or more handlings of the check were involved by a score or so of clerks, in five different banks, located in three different cities.

It would seem that the banks could not be expected to advance funds pending collection; but the competition among the financial institutions in the larger cities is so keen that the bank does not stand upon its rights and insist that the check shall be held for collection and credited to B's account only when collected, but passes it to his credit at once through fear that he will withdraw his account and deposit with some other bank that will extend that accommodation to him. This practice is quite general.

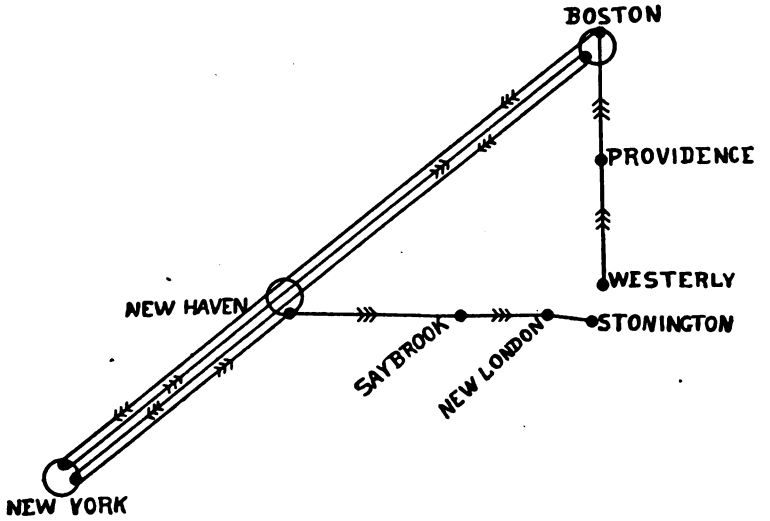
During the past few years great strides have been made by the clearing-houses throughout the country in the matter of establishing uniform rates for the collection of country checks, and at the present time there are few associations in the United States that have not some sort of a schedule for this purpose, however crude it may be.

53. LOST MOTION IN COLLECTING CHECKS[1]

By JAMES C. HALLOCK

1. A check for less than $50 on Stonington, Conn., started at Westerly, R.I., six miles from Stonington, which it reached only after many days and a thousand miles of travel by the following route: Westerly to Providence, Providence to Boston, Boston to New York, New York to Boston again, but to another bank; Boston to New York again, but to another bank; New York to New Haven, New Haven to Saybrook, Saybrook to New London, and New London to Stonington. It passed through Boston twice, New York twice, and New Haven four times. It was put through nine banks, two of them in Boston and two in New York.

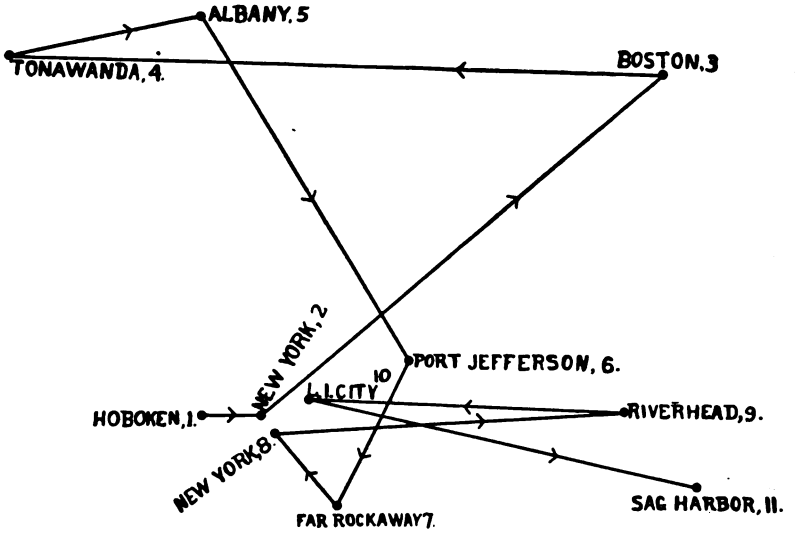
The following diagram pictures the circuitous journey:



[1] *Clearing Out-of-Town Checks*, pp. 12 and 21. (Copyright by the author, 1903.)

2. A check drawn in Hoboken and payable to a Sag Harbor firm, visited New York, Boston, Tonawanda, Albany, Port Jefferson, Far Rockaway, New York again, Riverhead, and Long Island City.

The journey was as shown in the diagram below:



54. CORRESPONDENT RELATIONS BETWEEN BANKS[1]

By WILLIAM A. SCOTT

Banks are the chief agencies for the conduct of exchanges between persons who do not reside in the same place. If a person buys goods beyond the limits of his home town he often pays for them by sending a draft purchased from a local bank and drawn either upon a bank in the place in which the goods were purchased or upon a bank in some other place which has frequent business relations with this one. In order to render this service to their customers banks are obliged to keep funds on deposit in other cities, not necessarily in every city in which the customers may desire to do business, but in certain commercial centers through the banks of which arrangements may be made for the conduct of exchanges with any place desired. The banks selected for this purpose in this country are usually called correspondents. In countries in which branch banking is practiced

[1] Adapted from *Money and Banking*, pp. 117–21. (Henry Holt & Co., 1910.)

a great deal of business of this kind is conducted between the central institution and its various branches.

By way of illustration let us consider the way in which a small city in Wisconsin conducts its exchanges with the outside world. We may assume that its banks have correspondents in Milwaukee, Chicago, and New York. Its out-of-town business results from the purchase and sale of goods and the adjustment of credit relations between its inhabitants and outsiders. Purchasers of outside goods will pay for them by sending checks on a local banker, by buying drafts on Milwaukee, Chicago, or New York, provided exchange on these places is acceptable to their customers, or, if not acceptable, on other places, such drafts being furnished by the correspondents of the local bank. These payments do not necessarily correspond in time with the purchases. Some are deferred. On a particular date the demand for exchange due to purchases comes from those made on time in the past, the payment for which falls due on that date and includes those made on a cash basis. To this demand must be added that arising from the adjustment of credit relations with outsiders. Under this head belong loans made to outsiders and investments in outside enterprises. Gifts to outsiders or transfers of property from any cause would also add to this demand.

To meet these drafts the banks have the checks, drafts, bills of exchange, etc., drawn on outside institutions and sent to the city in payment for goods sold, on account of loans, gifts, and other transfers of property to citizens and on account of investments of outsiders in local enterprises. These credit instruments are deposited with the local banks and sent by them to their correspondents for collection. Whether or not they will be sent to Milwaukee, Chicago, or New York, or distributed between the three places, will depend in part upon the location of the banks on which these instruments are drawn or at which they are payable and in part upon the condition of the local banks' accounts with their correspondents. Instruments drawn on Milwaukee or on banks in towns which do their banking business chiefly through Milwaukee will usually be sent to correspondents in that city, and the others, on the same principle, to Chicago and New York correspondents. Certain checks and drafts may be indifferently sent to either place, in which case the condition of the banks' balances in these three centers will determine the distribution.

It is obvious that on a given date the balance between the drafts made by the banks of a town on their correspondents and the credits

made in their favor through collections and deposits of checks and drafts may be in their favor or against them. In the former case their balances with their correspondents will increase and in the latter case decrease. A succession of favorable balances might result in large accumulations and a succession of unfavorable balances in the overdrawing of their accounts. The existence of such balances renders possible the movement of money from one place to another, since the creditor banks may demand from the debtor banks payment in cash. Whether or not they will do so depends upon their ability profitably to use at home more cash than they already have, and this depends upon the relative local and outside demand for loans and hand-to-hand money. When banks are loaning heavily to local customers, their deposits increase and more cash is needed in the reserves, and when there is an increased demand for hand-to-hand money, a relatively larger number of checks are presented for encashment, and they are obliged to increase the percentage of reserves to deposits unless they are able to meet this demand by increased issues of notes, a resource not open to the banks of the United States under existing conditions. If the home demand for loans and for hand-to-hand money does not justify the banks in calling for shipments of currency from their correspondents, they may loan surplus funds in the cities in which their correspondents are located, or in other cities, or leave them on deposit with correspondents at such a rate of interest as may be agreed upon. In this case these funds will be loaned by the correspondents instead of by the local banks, and the rate of interest paid by them will be sufficiently below the local rate to guarantee a fair profit on the transaction. In case the home demand for loans, or cash, or both, exceeds the funds banks have at hand or on deposit with their correspondents, they may arrange with the latter for overdrawing their accounts, either by drawing drafts upon them without sending exchange or cash sufficient to pay them, or by ordering shipments of currency to them in case the need is for hand-to-hand money rather than credit. Correspondents will grant such accommodations only on condition of the payment of a rate of interest on adverse balances equal to or in excess of the local rate plus the expenses of the transaction.

55. THE CONCENTRATION OF MONEY IN GREAT FINANCIAL CENTERS

It has been the theory of our national banking system to permit a depositing of reserves by the banks of smaller cities in the banks of

larger cities. For instance, country banks have been allowed to keep three-fifths of their required reserve in correspondent banks in the financial centers. The practice is quite general for these banks to loan this reserve at a small rate of interest (2 per cent) to the larger city banks, particularly in New York, where they are used in the making of call loans to stock-exchange speculators.

In addition to loaning their legal reserves the outlying banks also loan additional funds to New York and other city banks during periods of slack business in the country. Otherwise idle funds are thereby given temporary employment while remaining subject to call for more remunerative investment as soon as occasion offers. Sometimes instead of redepositing these funds in banks in the money centers they are simply sent to brokers, who offer them as loans at the best rates obtainable.

56. EXAMPLES OF RAPID CONCENTRATION OF FUNDS[1]

By FRED M. TAYLOR

The experience of the country as a whole with reference to currency movements is duplicated on a small scale between every trading center and the territory immediately dependent upon it. For example, some years ago in a certain Michigan village which had a factory with a pay roll of $2,000 per week, it proved necessary for the local bank to bring out the $2,000 in cash from Detroit practically every week in the year. That is, the $2,000, having been paid to the workmen, instead of remaining in the village ready for use the next week, before the time was up found its way into Detroit, from which it had to be taken back by the banker.

Another rather striking illustration of this principle comes from the copper country of Michigan. There the banks are every month called upon by a great mining company to furnish many thousands of dollars in fifty-dollar bills, and these bills have to be shipped in from Chicago or New York, not once, but every time. This seems very strange. One would suppose that those bills which were shipped in and used in January would drift back to the banks and be ready for a second job in February. But not so; when February comes around the bills have all disappeared, and the operation of shipping in has to be repeated. And this goes on indefinitely.

[1] Adapted from *Some Chapters on Money*, pp. 139-40. (Copyright by the author, 1906.)

57. NEW YORK, THE GREAT FINANCIAL CENTER[1]

By O. M. W. SPRAGUE

The significance of the New York money market in our banking system is not fully recognized. It is indeed generally understood that the practice of depositing reserves with agents in the money centers places a severe strain upon them in emergencies, and it is well known that the New York banks have acquired a large share of such deposits. The enormous responsibilities resting upon the New York banks on this account may be seen from the following statistics: On September 1, 1909, the New York banks held more than 43 per cent of the net bankers' deposits of the country. Compared with the banks of Chicago and St. Louis their obligations to bankers were almost three times as great.

Large New York balances are necessary because New York is the clearing-house of the country. In this connection certain statistics gathered by the Comptroller of the Currency nearly twenty years ago have great significance. From information provided by 3,329 of the 3,438 national banks it was found that in 1890 all but three drew drafts upon New York, and that the total amount of such drafts was 61.31 per cent of all the drafts drawn upon all the banks of the country. In the case of the Chicago banks the amount drawn was but 9.82 per cent of the total. The Chicago banks drew upon New York for $222,000,000 and were drawn upon in return for but $82,000. These figures show very clearly how indispensable is the maintenance of payments by the New York banks if the dislocation of the domestic exchanges is to be avoided.

58. PAYING INTEREST ON DEPOSITS AND BANK COMPETITION[2]

By GEORGE S. COE

The payment of interest on deposits of money payable on demand is open to the gravest objections. This subject has upon several occasions in years past been under consideration, and its total abolition has been almost unanimously agreed to among our banks by written contract. Yet by the refusal of one or more members it has failed to become a binding obligation. Like some other great reforms, this

[1] Adapted from "Proposals for Strengthening the National Banking System," *Quarterly Journal of Economics*, XXIV (1909–10), 219–20.

[2] Adapted from an address before the New York Clearing-House Association, June 4, 1884 (*Bankers' Magazine*, New York, LVI [1884], pp. 44–51).

one does not admit of partial application or of compromise. Any attempt to make exceptions to the prohibition among partners mutually dependent can only result in entirely releasing them all from any obligation respecting it. Yet every banker will freely admit that the purchase of deposits payable on demand operates, in some degree, as an absolution of the obligation to be always in condition to meet the contract. Both the giver and receiver of interest on such deposits, by the nature of the business, substantially, though not expressly, agree to such use of the money as may prevent its immediate return.

What is the nature of bank deposits? Every responsible person in regulating his own affairs must withhold from permanent investment and keep in hand enough ready money for his current wants. This is his reserve. When such sums, for greater safety, are placed in charge of another person, they do not lose their essential character; and when they become further aggregated and pass into the possession of a bank or banker, they are still subject to the same immediate wants of every original owner for the very purpose for which he set them aside. And when these rivulets of capital become streams, and streams gather into rivers and flow toward the ocean until they reach this city, where they come into financial relations with other men in other continents, the parties who here take them in charge assume new and accumulated responsibilities. They are subject not only to the necessities of the people at home but also to the world-wide influences of commerce.

Is it not evident that when these reserves are attracted by banks and bankers who pay interest for them they immediately lose their peculiar character and become, so far, at once changed from reserves into investments, and that their original purpose is greatly reversed? The people's ready cash, by the very condition of receiving interest for it, necessarily passes through the banker into fixed forms never intended. Reserve and investment! Idleness and work! They are adverse and irreconcilable conditions. It is true that in the hands of sound commercial banks some of these deposit funds may be legitimately used for the best interests of society, in the negotiation of business notes representing articles of human want and subsistence, passing from production into consumption. This is using the fund by promoting the very object for which each person originally provided it. But such, we all know, is not the tendency nor the operation of the practice now in question. Money payable on demand with interest is chiefly loaned here upon fixed property intended for permanent

investment and upon bonds, stocks, and other obligations made for the construction of public enterprises and works of established purpose, whose large expenditures are not again resolvable into money. They are in their nature fixed, and they demand, not their ready cash reserve, but the permanent savings of the people to construct them. So that temporary loans of reserved capital upon such securities are certain to be called in when they are hardest to pay, because the ready-money reserves so injudiciously absorbed by them are called back by their owners in apprehension or for the supply of their own needs.

Deposits so unnaturally attracted are necessarily capricious and transitory. They fly away at the first whisper of danger, to the detriment of the many who have touched them. Those banks which so purchase them are objects of special dread to their colleagues in business, while at the same time they are continually held up as patterns of enterprise and as models for imitation. Differing so widely from their associates in principle and in practice, the two cannot work harmoniously together, nor equally and honorably share the burdens of a national financial system whose stability requires the New York banks voluntarily to stand firmly and compactly together as one united body.

Experience among ourselves has again and again proved that the interest-paying banks are the first to become embarrassed by any kind of financial disturbance, even if they themselves are not the means of producing it, and that they are then almost alone in being compelled to seek protection from the loan committee by a pledge of their securities.

Will a few members of this association, on the one hand, longer continue a practice that subjects them to this humiliation? And is it just, on the other, for a large majority to tacitly submit to having their business thus drawn away and the community periodically disturbed by associates whom, in the hour of peril, they are compelled for their own protection to support?

59. REDISCOUNTING BY NATIONAL BANKS[1]

BY LAWRENCE O. MURRAY

While the banks are assumed to have sufficient capital, surplus, profits, and deposits to take care of the business of the community in

[1] Adapted from a letter quoted in an unpublished thesis by Joseph J. Klein, entitled *The Development of Mercantile Instruments of Credit in the United States* (1911).

which they are located, they often rediscount notes, as is shown by their published statements, and their right to do so has been recognized by the courts. This may be necessary because of an unusual withdrawal of deposits, an unusual demand for loans by their customers, and possibly, in rare instances, to make good their reserve. Rediscounting when practical shows a rather strong seasonal swing with the larger amounts during the fall and early winter during the strain of the crop-moving period.

60. VARIOUS MEANS OF INTERSECTIONAL BORROWING[1]

The rediscounting by country banks in New York is not of large volume and at the present time comes principally from the southern correspondents. There is a great difference of opinion in reference to this matter, and in some quarters rediscounting is looked upon as a sign of weakness, but as far as I am concerned I do not feel that way. Of course any bank in New York which attempts to rediscount its paper and publish the same in its statement is more or less criticized. One large institution in this city showed bills discounted, or rediscounted, for some $2,000,000 in their September call to the Comptroller, which created considerable comment. But for out-of-town banks, whose customers need considerable sums of money at certain seasons, especially in the crop-moving period, and whose capital is not large enough, or would be too large during the rest of the year, I see no reason why such institutions should hesitate to rediscount with their reserve city correspondents. Where there are rival institutions in the smaller places throughout the country they do not hesitate to point out to the customers of the other institutions the fact that they rediscount, as if it was something out of the way. From this fact has grown up a practice with a large number of banks to secure money in other ways which will not show on their statement if called for by the Comptroller. For instance, if they have a large amount of bonds which are well known to their correspondents, they will pass a resolution of their board authorizing the officers to sell these bonds and their correspondent would buy them with an agreement on behalf of the bank to repurchase the bonds at the same price plus a fixed rate of interest. Another method of rediscounting is for the directors of the bank to give their own note jointly and severally to their reserve city correspondent for a considerable sum of money

[1] Adapted from a letter of a prominent New York banker, quoted in an unpublished thesis by Joseph J. Klein, *op. cit.*

without guarantee or endorsement of their bank in any way. The money thus borrowed by the directors is placed at their credit on the books of their own institution, but they do not draw against it, and it gives them just as much more money to use and increases their deposits at a time when naturally the deposits are withdrawn by their regular customers. Another method employed for this borrowing is for the bank to sell some of its notes without recourse to its correspondent, with instructions to charge these notes to their account ten days before maturity and forward the same to them for collection.

These are all irregular methods of borrowing and do not show in the call to the Comptroller; consequently that is the reason why when you come to examine the statements of national banks you do not find under the head of "Rediscounts" any considerable amount.

The Comptroller is endeavoring to take steps to stop these methods and make the banks show all their borrowings as rediscounts. There is one perfectly legitimate method, however, which the Comptroller cannot stop and which I am pleased to say is growing out of the practice of large purchases of commercial paper which the banks throughout the country are making in the open market. You know this is my "fad," and hence I feel very well pleased at the way this part of the business of the country is being handled. Where banks over the country buy commercial paper upon the open market from reputable note-brokers, and buy paper which is known to their correspondents in reserve cities as being first-class in every way, there is no reason, when they need funds to take care of their customers or meet receding deposit lines, why they should not take this commercial paper which is bought on the open market and sell it to their correspondents without any endorsement and without recourse. This makes a very flexible secondary reserve for every institution which carries commercial paper of this character, and the Comptroller can find no fault with this; and the banks that are doing it not only have the advantage over other institutions of being able to take care of their customers as the paper matures, but are also in a position to quickly and promptly turn into cash through their reserve agents a large amount of their bills discounted.

(2) PERIODIC TENSION AND EASE IN THE SYSTEM

(a) *Seasonal*

61. SEASONAL VARIATIONS IN NEW YORK MONEY MARKET[1]

BY EDWIN WALTER KEMMERER

With regard to seasonal movements in the relative demand for moneyed capital the New York money market exhibits five important seasonal swings. Throughout January and during the early part of February there is normally a pronounced "easing up" of the money market. By the fore part of January the crop-moving demand for money in the West and South is over and the return flow of cash is at its height. There is a natural reaction—in part psychological—which results from the relaxing of the heavy strain on the money market incident to January 1 settlements and to the passing of the holiday season. At this time freight traffic, both on the railroads and on the inland waterways, is relatively small.

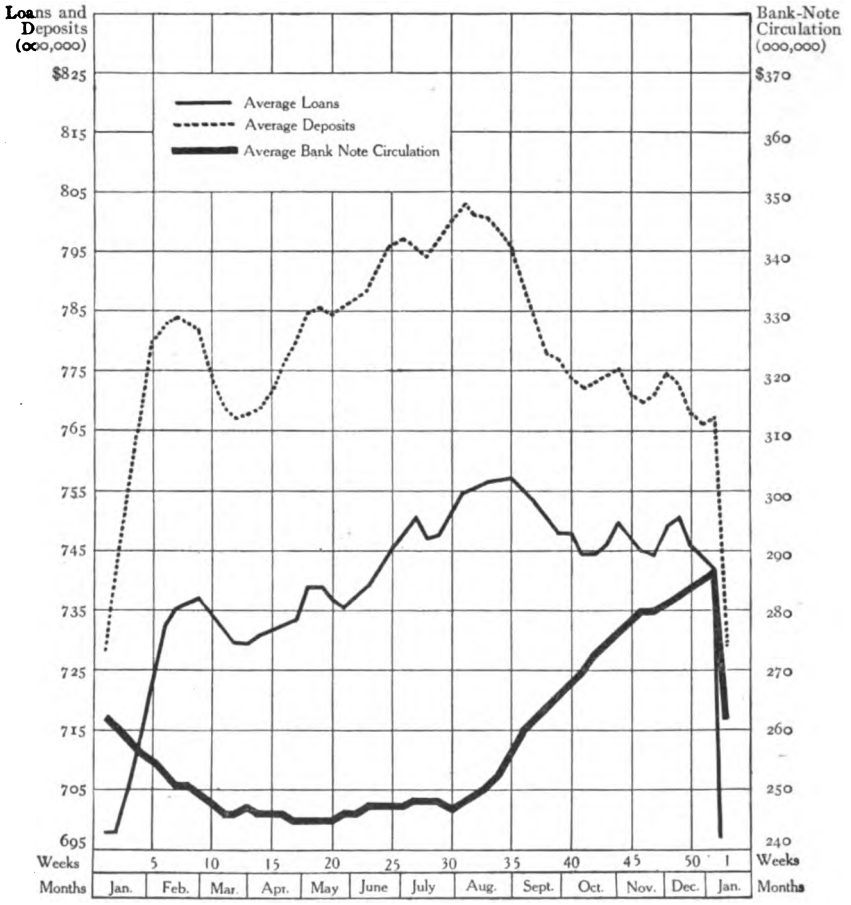
The second seasonal movement is the spring revival, beginning about the middle of February and extending to the latter part of March or the fore part of April (in some years a week or so later). This recovery is stimulated by the cheap money prevailing during the preceding period, railroad traffic is released from the incubus of cold weather and snow, the inland waterways are opened up; on April 1 comes the demand for large interest and dividend settlements, and in this period comes the spring demand of agriculturists for the planting of crops.

The third important seasonal movement is the weakening money market of the late spring, followed by the summer depression. This period extends from the middle or latter part of April to the fore part of August. It is interrupted by a temporary reaction about July 1, the time of semiannual settlements. This third seasonal period shows the natural reaction from the high rates of the preceding period, the anticipation and later the realization of the hot months of summer comprising the vacation period, the lessened demand for funds in the Middle West after the planting of the crops, and the resulting return of cash to New York for deposit, investment, and speculation. The declining and cheap money market at this time,

[1] Adapted from *Seasonal Variations in the Relative Demand for Money and Capital in the United States*, pp. 24–25, 223–24. (National Monetary Commission, 1910.)

which finds expression in such phenomena as large bank reserves, low interest rates, gold exportations, and high security prices, naturally brings its own corrective to some extent.

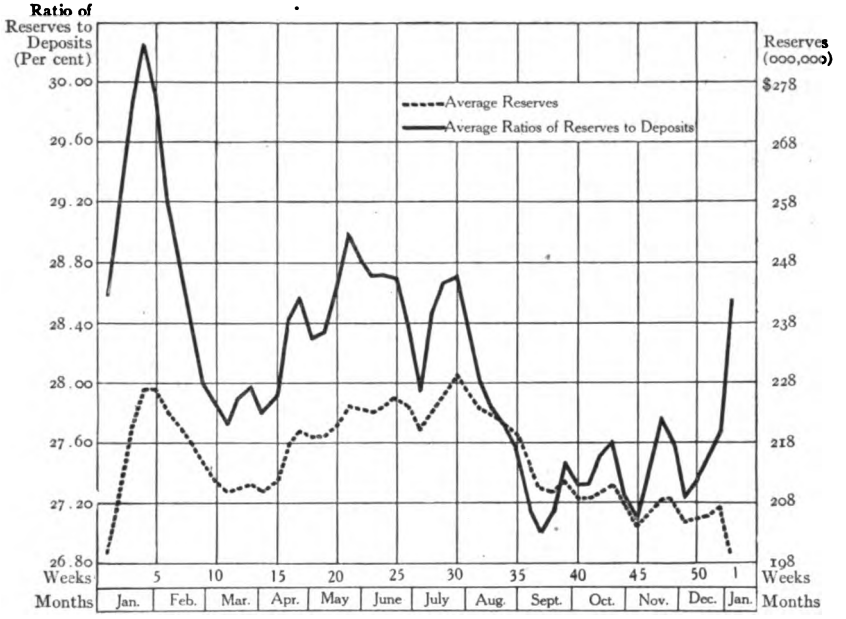
DEPOSITS AND BANK-NOTE CIRCULATION OF THE NEW YORK CITY CLEARING-HOUSE BANKS, 1890–1908



The crop-moving period is the fourth period. This period, the discounted beginnings of which are evidenced by the upward turn of interest rates on sixty- to ninety-day commercial paper and four months' time paper as early as the first week in July, may perhaps

best be dated from the first week in August, when call rates begin their upward movement and when bank reserves begin their decline. Under the pressure of the crop-moving demand for cash in the West and South bank reserves are depleted and the money market tightens rapidly until about October 1.

RESERVES AND RATIOS OF RESERVES TO DEPOSITS OF THE NEW YORK CITY CLEARING-HOUSE BANKS, 1890–1908



The fifth and last seasonal period in the New York money market extends from about the first week in October to the opening of the new year. It is a period of considerable uncertainty and of many minor fluctuations, but the demand for moneyed capital continues large until after the holiday season and January settlements. The westward movement of cash falls off rapidly in November and December, and by the latter month the return flow has set in. The southward movement declines in November, but shows some signs of increasing temporarily in December. Gold imports reach a low point in December. Throughout October, November, and December the Federal Treasury Department normally continues to increase its deposits in national banks, of which New York City gets its share.

62. SEASONAL VARIATIONS IN OTHER CENTERS[1]

BY EDWIN WALTER KEMMERER

Chicago, as might be expected, shows a striking similarity to New York. There are the same five principal seasonal movements taking place at approximately the same times of the year and influenced largely by the same causes.

The St. Louis seasonal swing differs from those of New York and Chicago principally in the fact that it exhibits a sharp decline in November, followed by a reaction extending until the latter part of December. There are considerable differences, moreover, in the times at which the different seasonal movements begin and end. Being in the midst of the great agricultural section which creates the "crop-moving demand for money," St. Louis naturally relaxes from the crop-moving strain earlier than do the cities farther east.

The movements in New Orleans differ from those of New York and Chicago even more than do those of St. Louis. The January decline is of such short duration as to be almost negligible. Bank reserves decline rapidly from early in January until the beginning of May, but this is apparently not due so much to a demand for funds at home as to the transfer of money for deposit and investment to other markets during the slack season in the region contributory to New Orleans. The New Orleans market, like those of other cities studied, is weak during the hot summer months of June and July, but begins to grow stronger by August and reaches its strongest point of the year during the crop-moving months of September, October, and early November. The last period of the year in the New Orleans money market is one of readjustment and liquidation, following the heavy demands of the crop-moving period. It extends from the fore part of November to the end of the year, and is a period of comparatively strong though gradually weakening market, and seems to resemble more closely the markets of New York and Chicago for this period than that of St. Louis.

The San Francisco market is probably more largely influenced by purely local conditions than any of the other money markets studied. It exhibits seven fairly pronounced seasonal movements, as follows: (1) The usual January decline. (2) A progressive "hardening" from about the first of February until nearly the middle of

[1] Adapted from *Seasonal Variations in the Relative Demand for Money and Capital in the United States*, pp. 224–25. (National Monetary Commission, 1910.)

March. In addition to the forces bringing about this spring revival in other cities, such as the natural reaction and readjustment after the January decline and the spring demands of agriculturists, the local tax situation in California is an important factor. (3) The third period is one of an easier money market. It begins about the middle of March, and continues until the last of April, being temporarily interrupted at the time of quarterly disbursements, about the first week in April. This movement, like the former, is largely the result of the local tax system. (4) From the last of April until the latter part of June the San Francisco market is comparatively strong, under the influence of the demands for the annual fruit-packing business and of fishing companies preparing for long fishing trips. (5) The fifth period extends from the last of June to about the last of September. Like the summer months in the other cities studied, it is a period of comparatively small demand for loanable capital. (6) The sixth seasonal period is the crop-moving period, extending from about the last of September until the latter part of November. It is a period of rapidly increasing or large relative demand for moneyed capital. The demand comes largely from the need of funds for moving dried fruits and canned fruits and for financing the hay and grain crops. An important factor in the market at this time is the local tax situation. (7) The seventh and last seasonal movement in the San Francisco market covers the last few weeks in the year and begins anywhere from the latter part of November to the middle of December, according to the lateness of the season. It is a period of reaction and decline after the strong market of the preceding period.

63. THE THEORY OF DOMESTIC EXCHANGE[1]

By WILLIAM A. SCOTT

Commercial relations between communities are revealed most clearly by what is called the balance of trade, by which is meant the difference between the totals of the sales to and the purchases from outsiders. When the total of sales exceeds the total of purchases, the balance of trade is said to be favorable, and in the opposite case unfavorable. Credit relations are revealed by balancing mutual loans and investments, and gift relations by balancing gifts and other transfers of property for which no return is expected. A combina-

[1] Adapted from *Money and Banking*, pp. 121–25. (Henry Holt & Co., 1910.)

tion of these balances results in making a given community either a debtor of or a creditor to other communities. It is for the adjustment of these debit and credit balances that shipments of money from place to place are made.

At this point the queries naturally arise whether the money funds of a community may not be completely exhausted by the payment of adverse balances and how much is required for this purpose. An examination of the various elements which determine the balance of indebtedness will show that there is no danger either of the exhaustion of money funds or of their reduction below minimum requirements. The balance of trade, the balance of loans, and the balance of investments are all three adjustable. Long before a community could be deprived of the minimum amount of cash needed for bank reserves and hand-to-hand money, prices, interest rates, and opportunities for profitable investments would have so changed as to annihilate the unfavorable balance. The first effect of shipments of currency to other centers is the decline in the reserves of banks, which, if continued, will result in a rise of interest rates and a contraction of bank loans. The withdrawal from business men of the loan accommodations to which they have been accustomed will force them to diminish their purchases and will stimulate their efforts to sell. If this is not sufficient to redress the unfavorable balance, loans from outsiders may be increased or the fall in local values due to the increased anxiety to sell property may induce outsiders to increase their investments in the town. The proper adjustment will ultimately be brought about by a change of prices. If those of the place at which the balance of indebtedness is adverse are sufficiently reduced, increased sales to and increased investments by outsiders will remedy the difficulty, and such a reduction will result from the pressure to meet obligations caused by the currency drain.

The influence of currency movements on relative prices must not be confused with the fundamental causes of price changes. We are here concerned with the adjustment of the relations between the demand and the supply of the same goods in different places. Movements of currency from place to place are but one phase of the operation of the general principle that people sell in the dearest and buy in the cheapest market, the result of which is a tendency toward the equalization of the prices of the same commodity in different markets.

Shipments of currency from place to place involve expenditures for express charges and insurance and the loss of interest during the period of transit. This latter item is explained by the fact that banks are unable to count as part of their reserve, and hence to use as a basis for loans, money in the possession of an express company. On account of these expenses, a bank which is asked to sell exchange on a place in which it has no balance, or to which it cannot without expense transfer a portion of its balance in some other place, must charge a premium for such drafts, unless it can buy in the home town exchange on that place at par. Under the opposite circumstances a bank may be willing to sell drafts at a discount, since this may be the most profitable way of using a surplus balance with its correspondent. This would be the case, for example, if its reserve were low and its surplus with the correspondent large. Rather than pay the expense of a currency shipment it could afford to sell drafts at any discount less than that expense. The maximum premium it could charge in the opposite case would be the expense of sending money to cover its draft, since rather than pay a higher premium customers would ship cash for themselves. The rate of exchange on a place, as the price of drafts is technically called, may, therefore, fluctuate between a point above par, determined by adding the expenses of shipment to the face value of the draft, and a point below par, determined by subtracting that amount. The actual premium or discount is fixed by competition between the buying and selling banks of a place, those in a position to sell exchange competing with each other for the custom of those buying, in case exchange is at a discount, and, in case it is at a premium, the buying banks bidding against each other for the drafts the selling banks are willing to dispose of.

The cost per $1,000 of currency shipments between New York and Chicago is usually about 50 cents; between New York and St. Louis, 60 cents; between New York and New Orleans, 75 cents, and between New York and San Francisco, $1.50. In this country the expense of currency shipments is sometimes saved by the operation of our independent treasury system. The central government has subtreasuries in which its funds are kept in Philadelphia, New York, Boston, Baltimore, Cincinnati, St. Louis, New Orleans, Chicago, and San Francisco, and when it has occasion to make transfers for its own purposes it may sell drafts on certain subtreasuries at par, thus saving banks the expense of shipping currency on their own account.

64. EXCHANGE RATES AND MOVEMENTS OF CURRENCY TO AND FROM CHICAGO[1]

By EDWIN WALTER KEMMERER

Throughout January money in Chicago relative to that in New York City is cheap. Exchange rates on New York are high and there is a considerable movement of cash from Chicago to the Eastern states—particularly to New York City. The average rate of exchange for each of the first four weeks (1899–1908) varied from 2.5 cents premium in the first week to 10 cents premium in the fourth week. Of the forty weekly rates appearing during the first four weeks of the ten years twenty-four were not less than 10 cents premium. Comparatively high exchange rates were accordingly fairly regular in their occurrence during this period.

Just prior to January 1 there is normally a large demand in Chicago for New York exchange with which to meet dividend and interest payments due in New York, and the high rates thus created continue somewhat into the new year. The crop-moving and holiday demand, however, being over, money becomes relatively cheap in Chicago and flows to New York City, where it can at least earn the 2 per cent paid by banks on bankers' balances, and where it is absorbed somewhat in speculative activity and in the higher security prices, which normally rule the latter part of January and the fore part of February.

From the last of February to the fore part of March the demand for money in Chicago relative to that in New York rapidly rises. Exchange rates on New York fall to a low point.

Reported currency shipments between Chicago and Eastern states substantiate the evidence of domestic exchange rates. The total shipments of cash from Chicago to the Eastern states in January amounted in four years to $8,088,000, while February shipments amounted to only $1,934,000. The total receipts by Chicago from the East in January for the four years was $1,751,000. There is no evidence of a movement of cash from the East to Chicago in February, although there is something of a westward movement in March.

During the period from late January to early March the relative demand for money in Chicago is increased by the anticipated opening of navigation on the Great Lakes, for the opening of navigation gives rise to a large amount of New York exchange received in payment of

[1] Adapted from *Seasonal Variations in the Relative Demand for Money and Capital in the United States*, pp. 96–100. (National Monetary Commission, 1910.)

grain bills. There is also a demand on the part of western bankers for currency to meet the spring needs of the western farmers. The first of March in many sections of the Middle West is the commonest time for making settlements of interest and principal on farm mortgages. It is also a common date for paying farm rents.

This spring advance in the value of money in Chicago as compared with New York reaches its maximum early in March. The demand then falls off rapidly and with only temporary interruptions (the most noteworthy being about May 1) until it reaches the low level of the early summer, the latter part of May. It continues at a low level until early in July, when the crop-moving advance begins.

The average domestic exchange rate rose from 29.5 cents discount in the ninth week to 16 cents premium in the twenty-first week. In nine of the ten years the rate for the twenty-first week was higher than that for the ninth. The average rate then fell to 4 cents premium in the twenty-fourth week. These two latter movements, however, were minor ones and not regular in their occurrence, the former taking place in six and the latter in five of the ten years.

Chicago reported relatively small receipts of cash from the East during these months. The shipments east, however, were high, the totals for four years being as follows: March, $6,287,000; April, $10,936,000; May, $12,212,000; June, $12,628,000.

Money, having served its purpose in meeting the spring needs of agriculturists, flows into the reserves of the Chicago banks, and Chicago bankers, not having a great demand for it at this time, move a portion of it to New York for the purpose of obtaining the 2 per cent which New York banks pay upon bankers' balances.

About July 1 the relative demand for money in Chicago begins to increase, advancing rapidly, with minor interruptions, until early in September and then maintaining a high level until the fore part of November. During this period exchange rates rule low and money moves in large quantities from the Eastern states to Chicago. The average exchange rate fell abruptly from 11.5 cents premium in the twenty-sixth week to 16.5 cents discount in the twenty-seventh week, a decline taking place in every one of the ten years. After a minor reaction to the twenty-ninth week, which took place in seven years, there was a continuous decline until the thirty-fifth week, when the lowest point of the year was reached. The average rate fell from 11.5 cents premium in the twenty-sixth week to 37.5 cents discount in the thirty-fifth, a very substantial decline taking place in

every year. Exchange then continued at a low level until about the forty-fourth week (fore part of November), the average rate for this week being 29 cents discount.

The primary cause for this is of course the anticipated and actual crop-moving demand. For the twenty-seventh week (about July 1) the striking fall in exchange may be due in part to the efforts of western banks to maintain their reserves (or strengthen them) in preparation for their half-yearly statements, which are generally published.

The receipts of cash by Chicago banks from eastern banks from June to October were as follows: June, $2,500,000; July, $2,704,000; August, $17,910,000; September, $11,789,000; October, $21,843,000. Shipments by Chicago to the East were very low in all these months.

During the last six to eight months of the year, the demand for money being stronger in New York than in Chicago, the average exchange rate rose from 29 cents discount to 13 cents premium in the forty-seventh week; it then declined to 11.5 cents discount in the forty-ninth week. The rate for the forty-seventh week was higher than that for the forty-fourth in every one of the ten years, that for the forty-ninth week was lower than that for the forty-seventh in eight years and the same as the forty-seventh in the other two years, while that for the fifty-second week was higher than that for the forty-ninth in six years and the same as that for the forty-ninth in two years. The general upward tendency in rates at this time, as well as the two lesser movements noted, appear, therefore, to be fairly regular in their occurrence.

Reported receipts of cash by Chicago from the Eastern states fell off in November and December from their maximum figure for the year in October. On the other hand, shipments to the Eastern states reported by Chicago rose from $2,134,000 for October to $3,213,000 for November, then fell to $3,021,000 for December.

Money becomes relatively cheap in Chicago and vicinity during these last six weeks of the year, principally because of the return flow of currency previously shipped to the country districts for crop-moving purposes. There is also considerable demand at this time for New York exchange to meet payments in certain lines of goods, such as hardware and dry goods, that are due New York and New England houses by western establishments, and to make purchases for the holiday trade.

The decline in exchange rate from the forty-seventh to the forty-ninth week may perhaps be attributed to the fact that by this time

foreign exchange made by cotton and grain shipments to Europe has been sold in New York in considerable quantities. The advance from the forty-ninth to the fiftieth week and the comparatively high exchange rates until the end of the year are largely due to preparations for the January disbursements, which western concerns are called upon to make in New York City.

65. INTEREST ON DEPOSITS AND SEASONAL DISTURBANCES[1]

By WILLIAM A. RICHARDSON

The practice of paying interest on deposits is pernicious and fraught with danger and embarrassment to borrower and lender as well as to the general business interests. If deposit accounts are employed as temporary investments, the interest attracts a large amount of money to those cities where such interest is paid, and where speculation is most active, at seasons when as much profit thereon cannot be secured in legitimate business, these temporary investments are called in and jeopardize in their sudden withdrawal the whole business of the banks, both affecting the legitimate depositors on the one hand by excitement and distrust, and on the other creating a condition of things in which the borrowers on call are also unable to respond. The banks have borrowed their money of depositors on call. They have loaned it on call to speculators, who by its use have contributed to inflate prices of the stocks or merchandise which have been the subject of their speculations. The speculator wants it till he can dispose of them without a loss. This he is unable to do in a stringent money market. The banks, their depositors, and the borrowers all want it at the same time, and of course a stringency is developed which spreads distress throughout the country.

The system creates an immense amount of debts payable on demand, all of which thus suddenly and unexpectedly mature at the first shock of financial or commercial embarrassment in the country and at the very time when most needed by debtors and when they are least able to respond.

Without attributing the stringency in the money market which is experienced every autumn and occasionally at other seasons of the year solely to this practice of paying interest upon deposits in the large cities, it is evident that when money is less needed in legitimate business the practice encourages overtrading and speculation, always

[1] Adapted from *Finance Report*, 1873, pp. xv–xvi.

detrimental to the best interests of the country, and the bad effects of which upon those interests become more apparent and the disaster more widespread when the necessary contraction begins to be felt.

66. SEASONAL FLUCTUATIONS AND COMMERCIAL FAILURES[1]

By EDWIN WALTER KEMMERER

The figures for commercial failures for the years 1890–1908 published by Dun's and Bradstreet's show a striking seasonal movement. First to attract attention is the very large number of failures during the fore part of January. The first three weeks of the year are clearly the highest three. After the fore part of January there is a rapid decline in the number of commercial failures until the fore part of April. With the exception of a minor upward movement during July, followed by a decline throughout August, the curves of commercial failures tend to be low from early April until the fore part of September, when they begin a strong upward movement which does not culminate until after the opening of the new year.

What is the explanation of this marked seasonal swing in the number (and also the liabilities) of commercial failures? Obviously one of the chief causes for the large number of failures in December and January consists in the custom among business concerns of taking account of stock in December and of closing accounts for the year's business. Many small concerns really do not know where they stand until about this time of the year. Many financial obligations, moreover, become due January 1, and it is customary in many places for banks to require statements of customers at about this time. In early January business concerns are commonly facing a period of inactive business. Similar conditions in general exist, although on a much smaller scale, during the few weeks before and after July 1, and probably account for the movements in commercial failures noted as occurring at that time. Concerns which survive the December-January strain are likely to be able to continue during the spring and the slack summer months. As the fall approaches and the money market hardens in response to crop-moving demands, as interest rates rise, bank reserves decline, and loans are curtailed, as securities tend to decline and increased margins are called for, the

[1] Adapted from *Seasonal Variations in the Relative Demand for Money and Capital in the United States*, pp. 231–32, 221–22. (National Monetary Commission, 1910.)

strain on the weaker business concerns is liable to become more tense. While, of course, it would be rash to say that the tightened money market in the fall is the cause of the large number of failures at this period, it seems reasonable to expect that the strained money market at this time would tend to push over many concerns which were already near the verge of failure. I know of no other explanation for the large number of failures during October and November. The period of the spring trade revival is so brief and such a short time after the "cleaning-up" period of December and January that it normally occasions few failures. In March, however, there is a slight decrease in the number of commercial failures.

67. SEASONAL VARIATIONS IN SUPPLY OF CURRENCY[1]

BY EDWIN WALTER KEMMERER

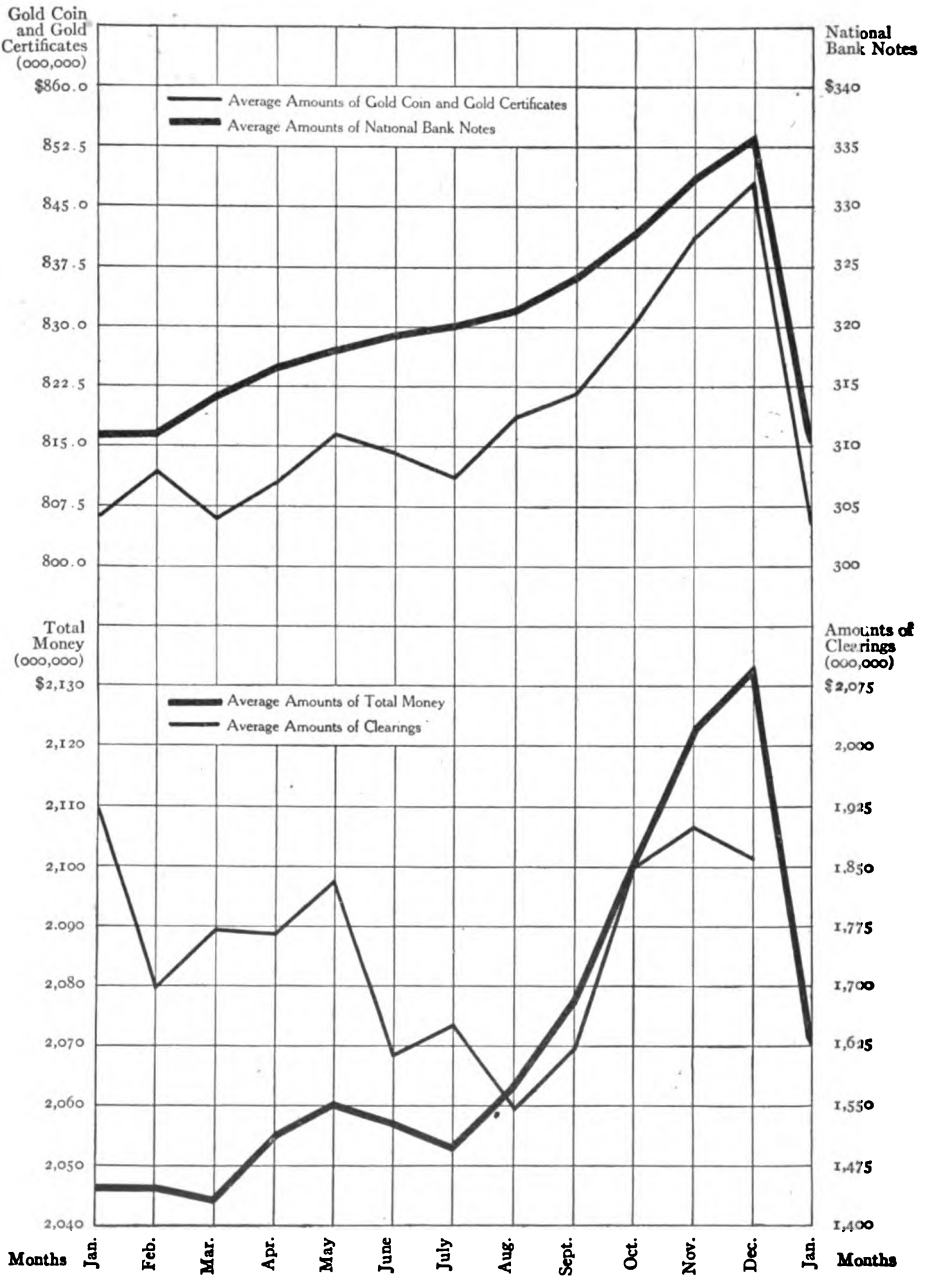
By "money in circulation" is meant all money outside of the Federal Treasury vaults. The forces influencing the amount of gold and gold certificates in circulation are (1) the bullion deposits at the United States mints and assay offices; (2) the net imports and exports of gold in settlement of foreign balances; and (3) subtreasury payments and receipts. The rapidly increasing gold production in 1890–1908 would of course show a steady increase in gold circulation from January to December.

The substantial increase in gold circulation from July to December is due to the large deposits of gold at the mints and assay offices in these months, by net importations of gold from abroad in consequence of heavy exports at this season, and to a decrease in the treasury balances. The deposit of large amounts of bullion at the mints at this season is due merely to the conditions surrounding the production of gold. It is not brought about to any extent by the great demand for moneyed capital at this time of the year. It has been the policy of the Treasury Department during the latter months of the year to aid the banks in meeting the crop-moving demand by decreasing subtreasury holdings and increasing government deposits in national banks.

The national bank note circulation curves do not exhibit any considerable seasonal elasticity. There is a general increase from

[1] Adapted from *Seasonal Variations in the Relative Demand for Money and Capital in the United States*, pp. 146–53, 173. (National Monetary Commission, 1910.)

SEASONAL VARIATIONS OF VARIOUS KINDS OF MONEY AND OF DEPOSITS IN THE UNITED STATES, 1890–1908[1]



[1] Chart made from Kemmerer's chart, p. 146, and table, p. 161.

year to year, as would be expected because of generally expanding business, but there is virtually no rise and fall according to the seasonal variations in the demands of trade. It is noteworthy, however, that the increase in circulation each year takes place largely in the fall and early winter. Apparently banks intending to increase their circulation postpone doing so until the crop-moving season approaches. There is no evidence of contraction, however, when the crop-moving demands are over, the national bank note elasticity being (to use a rather inelegant expression) of the chewing-gum variety.

Deposit currency exhibits a high degree of seasonal elasticity, expanding and contracting in accordance with variations in trade demands. It is the only truly elastic element among our media of exchange. In some cities, like New York and Chicago, the general movement of the curves for the circulation of deposit currency follows fairly closely those for the relative demand for loanable capital. In other cities, like St. Louis and San Francisco, while the parallelism is not so close, there is, however, a tendency for the general seasonal swing of the deposit currency circulation and of the relative demand for moneyed capital to be similar.

68. INELASTICITY OF CURRENCY FOR SEASONAL NEEDS[1]

The autumn of each year makes more apparent the urgent necessity of some additional facility or means by which the demand for crop-moving funds can be supplied to the people without derangement of all the business and financial affairs of the country.

As has been so often said, there is no flexibility or elasticity in our currency. The necessity for this is always most acutely felt in the late summer and early autumn, or at the crop-moving time. The two ways in which the demand for funds then manifests itself are in a demand for an increase of deposits requiring more reserve money and for cash or currency to make cash payments. This latter demand has to be largely met by money which would otherwise be available for reserve. The withdrawal of this reserve money reduces the reserves when they should increase, and after it is no longer needed for cash payments the money returns to reserves and tends to inflate loan credits and induce speculation.

The real solution of the problem is to enable the banks to supply for the cash transactions bank notes not available for reserves, and

[1] *Report of Comptroller of the Currency*, 1906, p. 67.

which therefore do not contract loans when paid out and do not inflate them when they return.

Consider for the moment the supply of crop-moving funds, which is the really critical point in this question. When the harvests first begin in the South and Southwest, the banks at once feel two demands: first, for loans to the people who must provide funds to buy the products of the farm and plantation; second, for currency to pay the wages of labor and to pay for such products as must be paid for in actual cash, and not by a transfer of credits by check. This demand for loans to be kept on deposit makes more reserve money necessary for the banks to hold, and at the same time they must supply more currency for cash transactions. It would seem, therefore, perfectly axiomatic to anyone that the best way to meet the situation would be to keep in the banks all the money which can properly be used for reserve and to supply for cash transactions currency which will answer all necessary requirements, be just as safe, just as convenient, and just as good in every way, but which is not available as bank reserves. This can be done simply, easily, and automatically by the proper use of the right kind of bank notes, and in no other way.

69. THE TREASURY AND THE BANKS: HISTORICAL SUMMARY[1]

BY DAVID KINLEY

1. The policy of the government with reference to the safe-keeping of its funds has been variable. For the first few years after the adoption of the Constitution, before the subject attracted serious public attention, there was no specific place for the custody of the public money, and it was left largely in the hands of collecting and disbursing officers.

2. During the existence of the first and second United States banks, that is, from 1796 to 1811, and from 1816 to 1833, the date of the "removal of the deposits," the public money was kept mainly in these institutions and their branches. Nevertheless, even during these periods some state banks were employed.

3. In the interim between 1811 and 1816 the public money was kept mainly in the state-chartered banks. These banks were also used between 1833 and 1846, the date of the establishment of the independent treasury.

[1] Adapted from *The Independent Treasury of the United States and Its Relation to the Banks of the Country*, pp. 323–30. (National Monetary Commission, 1910.)

4. Beginning with 1847, immediately after the establishment of the independent treasury, the public money was kept in the Treasury and subtreasuries, and no banks were used until after the establishment of the present national banking system in 1863. Since that time the depositary banks have supplemented the use of the subtreasuries as places for the keeping of the public money.

5. In the past one hundred and twenty years, therefore, there were only seventeen, 1847–1864, in which the government did not use depositary banks for keeping the public money.

6. The evidence therefore shows that there has been, uniformly, a strong tendency for the government, throughout its history, to use banks.

7. The causes of this tendency are shown to have been the greater convenience in the management of the public money, the desire of the Secretary and the public that government fiscal operations should interfere as little as possible with the monetary circulation and with business conditions, the necessities of the government, and pressure from banking and other interests.

8. Under the influence and pressure described, first the Secretary of the Treasury, and later Congress, have given way, and virtually abandoned the policy of independence in the keeping and management of public money which was established by the act of August, 1846. Congress authorized the use of national banks in which to deposit receipts from internal revenue. With some vacillations the extent of the use of the banks as depositaries for these receipts has steadily increased. By recent legislation receipts from customs may also be deposited in the banks. Under the first interpretation of the law permitting these deposits they could accrue only as the collecting officers placed the money received by them in the banks and not from the transfer of government receipts once deposited in the treasuries. By later practice the latter method of deposit has also been adopted and is claimed by some to be legal. Under present practice and legislation, therefore, the Secretary of the Treasury has a free hand to put any and all receipts of public money in the depositary banks. The independence of the Treasury depends entirely upon the will of the Secretary.

9. A further departure from the policy of independence is shown by the course of opinion and legislation concerning security for deposits. Under the law as passed public deposits were to be secured by United States bonds and otherwise. This was understood to mean

United States bonds in addition to a personal bond. Eight years ago the phrase was differently interpreted, and banks were permitted to secure deposits on the basis of other than United States bonds as security. The practice thus established was legalized between two and three years ago.

10. At first the banks which obtained public money on deposit were expected to keep a reserve against it, as provided by the law of their being. Some seven or eight years ago this practice was broken and the banks allowed to hold public deposits without protecting them by a reserve. The practice thus initiated was also later made legal.

11. Finally, with all these changes, the amount of public money deposited with banks has steadily increased, until at one time in recent years only a comparatively small working balance was kept in hand by the Treasury itself.

70. RESULTS OF THE ISOLATION OF PUBLIC FUNDS[1]

By MURRAY S. WILDMAN

Since our federal revenue is so largely derived from indirect taxation, the streams rise and fall with the course of certain lines of trade and rarely coincide with disbursements over any considerable period. Owing to this uncertainty in the rate of income, there is nearly always a surplus and, normally, the excess of income over outgo determines the magnitude of the treasury hoard and the amount of the circulating medium of the country condemned to idleness.

These sums are significant from the point of view of their absolute magnitude and also from that of their variability. In all cases they consist of money capable of use as bank reserves. It is true that national banks may not count bank notes as part of their reserves, but since such notes are used as reserve by state and private banks the distinction may be ignored. It may be said also that the cash reserve of banks is made up of the surplus circulation of the country. So long as there is a deficiency of money for the needs of trade it will not be deposited, or if deposited will not remain in the hands of the bank. It follows that this entire sum, if not held by the Treasury, would be added to the bank reserves, eliminating exports of gold, and would increase the cash holdings of all institutions doing a banking

[1] Adapted from "The Independent Treasury and the Banks," *Annals of the American Academy of Political and Social Science*, XXXVI (1910), 576–81.

business. The effect of such an increase in cash reserves would depend on various circumstances. In the case of some banks it would further establish the convertibility of their demand liabilities without affecting the magnitude of these liabilities. In the case of others, by increasing the lending power it would tend to decrease the the rate of discount and so the cost of conducting business in general. This diminution in the costs of competitive business, other factors remaining constant, would tend to lower prices of consumers' goods.

The first and most obvious objection to our practice is found in the social loss involved in the idleness of pecuniary capital.

The waste involved in the idleness of public funds is less objectionable than the successive expansion and contraction of reserves which result from the receipt and disbursement of revenue. One phase of this movement may be illustrated by the simple case of a pension disbursement. On August 4 the Treasury drew pension checks amounting to $14,970,000 and distributed them throughout the country. About half of this sum was drawn upon the assistant treasurer at New York. Coming into the hands of country banks, cashed or deposited, these checks are mailed to New York correspondent banks for credit. In a few days this mass of checks is presented to the New York subtreasury through the clearing-house and an equivalent amount of money is transferred from the subtreasury to the banks, whose combined reserves, in the absence of countervailing debits, are increased $7,000,000. Without any alteration in the aggregate wealth of the country or even of New York City the lending power of New York banks is raised about $28,000,000. In order that this new source of profit may be utilized, since nothing in the situation operates immediately to stimulate the demand from commercial sources, the competition of banks in an effort to place their funds lowers the call-loan rate. This reduces the cost of carrying stocks and stimulates speculation for the rise in Wall Street.

To reverse the illustration, let us suppose that the collection of duties at the port of New York in a given week reaches the not uncommon sum of $10,000,000. This amount of money is drawn from local banks and trust companies and locked up in the subtreasury. In as far as the effect on reserves and lending power is concerned, it might quite as well have been sunk in New York harbor. The rate for call loans rises, stocks fall, or commercial paper which otherwise would have found a ready market remains unsold and the production and exchange of goods may be curtailed.

Unable to foresee these fluctuations in reserves and the consequent fluctuations in the lending power of his banker, the merchant is constrained to carry a much larger cash reserve (bank deposit) than would be carried otherwise, and the interest on this is the price he pays for this particular form of insurance, a charge that is ultimately shifted to the consumers of the goods he offers for sale or to the producer from whom he buys. By the same token each banker in a system which presupposes independence and the absence of any joint responsibility carries a large fund of capital devoted to no more productive purpose than as an insurance fund. This fund of ready money tends to be largest in times of stress when the needs of commerce are greatest. This added cost to the banker's business is paid in higher discount rates and tends to shift to the price of commodities.

The largest source of revenue is in the import duties, amounting in the fiscal year ending in 1910 to $333,683,445.03. About two-thirds of these duties are paid into the subtreasury at New York, mainly from the banks of that city, and a corresponding large part of the disbursements are made from the sub treasury and pass to the local bank reserves. It happens that gold drawn for export is taken from the same group of banks. New York bank reserves stand in a peculiar relation therefore to our foreign trade. When imports of commodities are heavy the payment of duties tends to coincide with a rise in foreign exchange and with threatened or actual gold exports, causing a double drain of bank reserves. In this situation it would be suicidal for New York bankers to purchase time paper with the same liberality as can be practiced by the bankers of Chicago or St. Louis. In order to protect themselves against this double drain of funds they must lend a large portion of their funds on call for use in stock exchange speculation, or else adopt the alternative policy of excessive reserves. Our fiscal system therefore is one of the instruments that promotes excessive stock exchange speculation in this country.

71. TREASURY AID FOR SEASONAL STRINGENCY[1]

A. THE AUTUMN OF 1912

An interesting economic condition due to the heavy business demands upon the banks is again seen in the reduction of reserves and the renewed appeal to the national treasury for help. Practically

[1] From "Washington Notes" in *Journal of Political Economy*, XX (1912), 957.

since the end of August there has been very strong interest among bankers and the more foresighted business public with reference to bank conditions. It was early admitted that the large crop movement would necessitate the granting of extensive accommodation by the banks with corrresponding pressure on reserves. During the latter half of September the decline of reserves in the clearing-house cities had been very severe, and in several places the banks were forced close to the danger line. The consequence was a loud call for government aid. In deference to these demands, Secretary MacVeagh, who has had about $90,000,000 that might at a pinch have been deposited, had ordered an inquiry into the situation by officers of the Treasury Department. The outcome of this inquiry was an unofficial announcement at the opening of October that no Treasury deposits would be made, followed shortly thereafter by an equally unofficial statement of a plan for the limited relief of the national banks. This plan consisted in the placing with the banks of gold or gold funds equal to any amounts importation of which might be arranged for, such funds to be available as soon as provision should be made for the importations desired. This was practically a revival of the plan followed by Leslie M. Shaw when Secretary of the Treasury, whereby the banks were permitted to count as part of their reserves any importation of gold they might engage from abroad so soon as such arrangements had been entered into. The only difference between the original Shaw plan and the present undertaking of the Treasury is that the latter takes the government gold from the vaults and places it in the hands of the banks as soon as officials are assured that they are protected by a bona fide arrangement made by the bank in question with a foreign shipper.

B. THE AUTUMN OF 1913[1]

Toward the latter part of July symptoms of uneasiness began to reappear. There was much talk about the difficulty of moving the fall crops, and the annual apprehension on this score began to stalk about the country with more than usual vigor. It is a characteristic of our imperfect and unsatisfactory banking system that the very prosperity of the country becomes, at times, a menace, because of the apprehended inability of the banks to meet the seasonal demand for the large amounts of money required to move a bounteous harvest. Conditions were again becoming acute when the Secretary determined

[1] From *Annual Report of Secretary of the Treasury, Finance*, 1913, pp. 2–4.

to deposit from twenty-five millions to fifty millions of dollars of government funds in the national banks in those parts of the country where the necessity for funds to move crops existed. The Secretary announced that, as security for such deposits, high-class commercial paper would be accepted at 65 per cent of its face value, bearing the indorsement of the depository bank. This was an unprecedented step, because commercial paper had never before been accepted as security for government deposits. It was, however, a necessary and highly beneficial step, because it enabled the banks to obtain the required funds upon the pledge of available paper already in their vaults. If the banks had been obliged to secure these deposits with government bonds or other fixed investments, the relief would not have been effective, because many of the banks would have been compelled to use the deposits for the purchase of the bonds required by the Government as security.

In order to distribute intelligently the crop-moving deposits, three conventions of bankers were held at the Treasury Department in Washington during August, 1913, the first composed of bankers from the Southern and Southwestern states; the second composed of bankers from the Middle Western and Northwestern states; the third composed of bankers from the Pacific Coast and Rocky Mountain states. It was not necessary to extend aid to the Eastern states, although the Department was ready to do so if it had been required.

It was essential that the action of the Department should be non-partisan and non-political; the crops of Republicans, Democrats, Progressives, and all other classes of the people had to be moved, and the earnest desire of the Department was to have the benefits of this action diffused as widely and impartially as possible. The clearing-house associations in each of the cities invited to participate in the conferences were asked, therefore, to name the delegates. A most interesting and intelligent body of men assembled in Washington and discussed with the Secretary and Assistant Secretary Williams (in charge of the fiscal bureaus) the needs of their several communities and sections. As a result, allotment of these funds was made upon the basis of the testimony of their several representatives, as follows:

Middle and Southwest	$22,550,000
Middle and Northwest	19,000,000
Pacific Coast and Rocky Mountain	4,950,000
Total	$46,500,000

The Department, having no machinery for the investigation of local credits, was obliged to rely upon the banks in the larger cities as instrumentalities for the distribution of government funds to the banks in the smaller communities. In the discussions at Washington, the representatives of the banks were urged to pass the government funds on to their country correspondents upon reasonable terms. The Secretary is gratified to be able to say that in most instances this was done on a basis that seemed fair to all concerned.

The effect of this action was highly beneficial. Confidence was restored. The readiness of the Government to meet every reasonable need of the banks for the legitimate purposes of crop-moving had the effect, so the Department is informed, of causing much hoarded money to be deposited in the banks. This increased their ability to take care of their customers, and caused a decided relaxation in the demands of country correspondents for accommodation, which, prior to the announcement of the Secretary, had been much greater than usual, because the small banks were attempting, very naturally, to impound all the funds they could get to make them safe against the anticipated stringency. The moment it became known that the Government stood ready to assist, the tension was relieved, business resumed a normal aspect, and the fall movement of crops, trade, and commerce proceeded upon an easier and safer basis than for many years past.

It is interesting to note that of the fifty million dollars which the Department offered to place in the banks for crop-moving purposes only $34,661,000 had been called for up to November 25, 1913. These funds will be gradually repaid to the Treasury beginning in January, 1914.

(*b*) *Cyclical*

72. THE PERIODICITY OF FLUCTUATIONS IN TRADE[1]

By S. J. CHAPMAN

Everybody knows that production does not flow along uninterruptedly. It has its ups and downs. Periods of brisk business are followed by periods of stagnation. Some unsteadiness in trade we should naturally be prepared to find, for there are vicissitudes in all human affairs; but certain peculiarities characterize the broad

[1] Adapted from *Outlines of Political Economy*, 1913, pp. 254–55. By permission of Longmans, Green, & Co.

fluctuations of trade which one would not expect and which call for explanation. These peculiarities we may designate "synchronism" and "periodicity."

Good times in the different industries tend to synchronize or come more or less simultaneously. And so do bad times. There are numerous exceptions, but the rule seems to be that most industries are every now and then depressed together, and every now and then flourish together. Moreover, synchronism appears to hold internationally. When commerce is sluggish in one country it tends to be sluggish also in other countries.

The periodicity of fluctuations in trade means that the intervals between the fluctuations are not of quite uncertain duration. Regularity is far from being perfect, but it is sufficient to warrant the assertion that trade fluctuations exhibit a degree—a comparatively high degree—of periodicity. They are like the disturbed oscillations of a pendulum when a kitten is playing with it. It used to be claimed that the time normally occupied by a trade cycle was ten or eleven years. But departures from this duration are not uncommon; and it has recently been suggested that the wave-length of a trade cycle inclines to be about twice or three times a period of approximately three and a half years. Thus the cycle, it is said, may be expected to cover seven years at least and, should it exceed this length, to extend to about ten and a half years. But, unfortunately, the evidence which has been collected and sifted so far is too scanty to justify an unhesitating generalization. Of commercial fluctuations prior to the nineteenth century we are comparatively ignorant, and it is not known how far the cyclical movement reaches back.

73. CRISES AND PANICS IN THE UNITED STATES

While there were some earlier disturbances of importance, it is generally agreed that the first panic in the United States occurred in August, 1814. It was a direct result of the capture of Washington by the British on August 24, though the disruption of trade and the exigencies of war financing were contributing factors.

The first genuine economic *crisis* in the United States, however, occurred in 1819. It was an outgrowth of the abnormal expansion of manufacturing industries occasioned by the embargo and the War of 1812 and by the necessary readjustments that follow a period of inflated paper currency. Not until late in 1821 did commerce and industry begin to revive.

Both of these early crises were distinctively local and dependent upon national rather than international causes.

There followed a period of great prosperity and rapid territorial and business expansion, which continued with but slight interruptions until 1837. In 1824 there was an industrial boom, and in 1826 there was a reaction, due, in part, to the European crisis of December, 1825; but these were merely temporary deviations from an otherwise steady expansion.

The crisis culminating in the disastrous panic of May, 1837, is associated with an undue extension of banking and credit, an overprovision of public roads, canals, and railways, and excessive speculation in western lands. Recovery from the panic was very slow; indeed, it was more than a year before the banks resumed specie payments. A period of depression followed until the summer of 1843, a premature revival in 1838 and 1839 resulting in a multitude of failures.

A general revival of trade began in the autumn of 1843 and continued without much interruption until 1857. The European crisis of 1847 exercised little influence here, owing to good crops and heavy exportations. There was, however, a minor crisis in 1848, occasioned in the main by the Mexican War. The period of rapid expansion came to a head in the very sudden and sharp crisis of August, 1857. While the financial disturbance appears to have been more acute than in 1837, industry and commerce were much less seriously affected, and in consequence the succeeding period of depression was less universal in its effects. The depression reached its worst in 1859. Conditions were rapidly on the mend in 1860, but the outbreak of war in 1861 so disarranged the financial and industrial affairs of the nation that the return of prosperity was postponed for a half-dozen years. There was a great crisis in England in 1866 which the war, no doubt, enabled us to escape.

Following the Civil War we entered upon a new era of industrial expansion. Wide areas of agricultural lands were opened up, immigration was heavy, railroads were built on a scale hitherto undreamed of—built far ahead of settlements and the demands of trade. It was a period also of wild speculation, dishonesty, and extravagance. The great crisis of 1873 affected practically every operation of commerce and finance and shook the credit fabric to its very foundations. The succeeding depression was unprecedented in its severity and duration, continuing in most branches of industry until the end of

1878, and in some lines until 1879. The largest number of failures occurred in the year 1878.

Prosperity returned with bountiful harvests and the resumption of specie payments in 1879. A period of world-wide prosperity was marked in the United States by another era of enormous railroad building, industrial expansion, and extravagant living, which ended in the minor crisis of May, 1884. The downward movement continued until 1886; after the recovery there was a season of moderate activity until 1890. The great crisis in Europe, attending the failure of the famous English banking house of Baring Brothers, near the end of the year 1890, was felt acutely in the United States, though we escaped a complete breakdown, the enormous crops and heavy exports of 1891 tiding us over the threatening situation for another year or two. But in May, 1893, we again went to the wall with a panic which in many respects was even more severe than that of 1873. This crisis, however, was complicated by the unstable monetary standard of the time; by many it has been called a monetary rather than a financial crisis. It was doubtless a result of combined influences. The depression continued until 1896.

Along with the whole commercial world, in 1897 we entered upon another great period of expansion, which was accelerated after the Spanish War and continued with but minor reactions until the autumn of 1907. The crisis which ended in the panic of October, 1907, was marked by all the usual manifestations of such periods, and the depression which followed continued for more than a year. The succeeding years have been marked by great business and banking uncertainty, consequent upon extensive legislative experiments, Mexican troubles, and the European war. The outbreak of war in Europe occasioned a severe financial crisis and near panic in the United States, fortunately tided over successfully by the use of emergency currency.

74. THE RHYTHM OF BUSINESS ACTIVITY[1]

BY WESLEY C. MITCHELL

With whatever phase of the business cycle analysis begins, it must take for granted the conditions brought about by the preceding phase, postponing explanation of these assumptions until it has worked around the cycle and come again to its starting-point.

[1] Adapted from *Business Cycles*, pp. 571–79. (Copyright by the author, 1913. Published by the University of California Press.)

A revival of activity, then, starts with a legacy from depression: a level of prices low in comparison with the prices of prosperity, drastic reductions in the costs of doing business, narrow margins of profit, liberal bank reserves, a conservative policy in capitalizing business enterprises and in granting credits, moderate stocks of goods, and cautious buying.

Such conditions are accompanined by an expansion in the physical volume of trade. Though slow at first, this expansion is cumulative. In time an increase in the amount of business which grows more rapid as it proceeds will turn dullness into activity. Left to itself this transformation is effected by slow degrees; but it is often hastened by sŏmé propitious event, such as exceptionally profitable harvests or heavy purchases of supplies by the government.

A partial revival of industry soon spreads to all parts of the business field. For the active enterprises must buy materials and current supplies from other enterprises, the latter from still others, etc. Meanwhile all enterprises which become busier employ more labor, use more borrowed money, and make higher profits. There results an increase in family incomes and an expansion of consumers' demands, which likewise spreads out in ever-widening circles. Shopkeepers pass on larger orders to wholesale merchants, manufacturers, importers, and producers of raw materials. All these enterprises increase the sums they pay to employees, lenders, and proprietors. In time the expansion of orders reaches back to the enterprises from which the initial impetus was received, and then the whole complicated series of reactions begins afresh at a higher pitch of intensity. All this while the revival of activity is instilling a feeling of optimism among business men.

The cumulative expansion of the physical volume of trade stops the fall in prices and starts a rise. For when enterprises have in sight as much business as they can handle with existing facilities, they stand out for higher prices on additional orders. This policy prevails because additional orders can be executed only by breaking in new hands, starting new machinery, or buying new equipment. The expectation of its coming hastens the advance. Buyers are anxious to secure large supplies while the quotations continue low, and the first signs of an upward trend bring out a rush of orders.

The rise of prices spreads rapidly, for every advance puts pressure on someone to recoup himself by advancing the prices of what he has to sell. The resulting changes in price are far from even: retail

prices lag behind wholesale and the price of finished products behind the price of raw materials. Among the last-mentioned the prices of mineral products reflect changed business conditions more regularly than do the prices of forest and farm products. Wages rise more promptly but in less degree than wholesale prices; interest rates on long loans always move sluggishly in the earlier stages of revival, while the prices of stocks both precede and exceed commodity prices on the rise.

In a great majority of enterprises larger profits result from these divergent fluctuations, coupled with the greater physical volume of sales. For while the prices of raw materials and of bank loans often rise faster than selling prices, the prices of labor lag behind, and the prices making up supplementary costs are mainly stereotyped by old agreements.

The increase of profits, under the spell of optimism, leads to a marked expansion of investments. The heavy orders for machinery, the large contracts for new construction, etc., which result, swell still further the physical volume of business and render yet stronger the forces which are driving prices upward.

Indeed, the salient characteristic of this phase of the business cycle is the cumulative working of the various processes which are converting a revival of trade into intense prosperity. Not only does every increase in the volume of trade cause other increases, every convert to optimism make new converts, and every advance in price furnish an incentive for new advances; but the growth of trade also helps to spread optimism and to raise prices, while optimism and rising prices support each other. Finally, the changes going forward swell profits and encourage investments, while high profits and heavy investments react by augmenting trade, justifying optimism, and raising prices.

While the processes just sketched work cumulatively for a time to enhance prosperity, they also cause a slow accumulation of stresses within the balanced system of business—stresses which ultimately undermine the conditions upon which prosperity rests.

Among these is the gradual increase in the cost of doing business. The decline in supplementary costs per unit ceases when enterprises have secured all the business they can handle with their standard equipment, and a slow increase in these costs begins when the expiration of old contracts makes necessary renewals at higher rates. Meanwhile prime costs rise at a relatively rapid rate. The price of labor rises, both because of an advance in nominal wages and because of

higher rates for overtime. More serious is a decline in the efficiency of labor, because of the employment of undesirables and because crews cannot be driven at top speed when jobs are more numerous than men. The prices of raw material rise faster on the average than the selling prices of products. Finally, numerous small wastes creep up when managers are hurried by press of orders.

A second stress is the accumulating tension of investment and money markets. The supply of funds available at the old rates fails to keep pace with the swelling demand. It becomes difficult to negotiate new issues of securities except on onerous terms, and men of affairs complain of the "scarcity of capital." Nor does the supply of bank loans, limited by reserves, grow fast enough to keep up with the demand. Active trade keeps such an amount of money in circulation that the cash left in the banks increases rather slowly. On the other hand, the demand for loans grows, not only with the physical volume of trade, but also with the rise of prices, and with the desire of men of affairs to use their own funds for controlling as many businesses as possible.

Tension in the bond and money markets is unfavorable to the continuance of prosperity, not only because high rates of interest reduce the prospective margins of profit, but also because they check the expansion of the volume of trade out of which prosperity develops. Many projected ventures are relinquished because borrowers conclude that interest would absorb too much of their profits.

The group producing industrial equipment suffers especially. In the earlier stages of prosperity this group enjoys exceptional activity. But when the market for bonds becomes stringent and the cost of construction high, business enterprises defer the execution of plans for extending old or erecting new plants. As a result, contracts for this kind of work become less numerous as the climax of prosperity approaches. Then the steel mills, foundries, machine factories, lumber mills, construction companies, etc., find their orders for future delivery falling off.

The larger the structure of prosperity the more severe become these internal stresses. The only effective means of preventing disaster while continuing to build is to raise selling prices time after time high enough to offset the encroachment of costs upon profits and to keep investors willing to contract for fresh industrial equipment.

But it is impossible to keep selling prices rising for an indefinite time. In default of other checks, the inadequacy of cash reserves

would ultimately compel the banks to refuse a further expansion of loans on any terms. But before this stage has been reached the rise of prices is stopped by the consequences of its own inevitable inequalities. These become more glaring the higher the general level is forced; after a time they threaten serious reductions of profits to certain business enterprises, and the troubles of these victims dissolve that confidence in the security of credits with which the whole towering structure of prosperity has been cemented.

In certain lines in which selling prices are stereotyped by law, by contracts for long terms, by custom, or by business policy, selling prices cannot be raised to prevent a reduction of profits. In other lines prices are always subject to the incalculable chances of the harvests. In some lines the recent construction of new equipment has increased the capacity for production faster than the demand for wares has expanded under the repressing influence of high prices. The unwillingness of investors to let fresh contracts threatens loss not only to the contracting firms but to the enterprises from which they buy materials. Finally, the success of some enterprises in raising prices fast enough to defend their profits aggravates the difficulties of the men who are in trouble.

As prosperity approaches its height, then, a sharp contrast develops between the business prospects of different enterprises. Many are making more money than at any previous stage in the business cycle. But an important minority faces the prospect of declining profits. The more intense prosperity becomes the larger grows this threatened group. In time these conditions bred by prosperity will force radical readjustment.

Such a decline of profits threatens consequences worse than the failure to realize expected dividends. For it arouses doubt about the future of outstanding credits. Business credit is based primarily upon the capitalized value of present and prospective profits, and the volume of credits outstanding at the zenith of prosperity is adjusted to the great expectations which prevail when affairs are optimistic. The rise of interest rates has already narrowed the margins of security behind credits by reducing the capitalized value of given profits. When profits begin to waver, creditors begin to fear lest the shrinkage in the market rating of business enterprises which owe them money will leave no adequate security for repayment. Hence they refuse renewals of old loans to enterprises which cannot stave off a decline in profits and press for settlement of outstanding accounts.

Thus prosperity ultimately brings on conditions which start a liquidation of the huge credits which it has piled up. And in the course of this liquidation prosperity merges into crisis. Once begun, the process of liquidation extends rapidly, partly because most enterprises called upon to settle put similar pressure on their own debtors, and partly because news presently leaks out and other creditors take alarm.

While this financial readjustment is under way the problem of making profits is subordinated to the more vital problem of maintaining solvency. Business managers nurse their financial resources rather than push their sales. In consequence the volume of new orders falls off rapidly. The prospect of profits is dimmed. Expansion gives place to contraction. Discount rates rise higher than usual, securities and commodities fall in price, and working forces are reduced. But there is no epidemic of bankruptcy, no run upon banks, and no spasmodic interruption of ordinary business processes.

Crises, however, may degenerate into panics. When the process of liquidation reaches a weak link in the chain of interlocking credits and the bankruptcy of some conspicuous enterprise spreads unreasoning alarm, the banks are suddenly forced to meet a doubled strain—a sharp increase in the demand for loans and the demand for repayment of deposits. If the banks meet both demands, the alarm quickly subsides. But if many solvent business men are refused accommodation at any price and depositors are refused payment in full, the alarm turns into a panic. A restriction of payments by banks gives rise to a premium on currency, to hoarding of cash, and to the use of various unlawful substitutes for money. Interest rates may go to three or four times their usual figures, causing forced suspensions and bankruptcies. There follow appeals to the government for extraordinary aid, frantic efforts to import gold, the issue of clearing-house loan certificates, and an increase in bank-note circulation as rapidly as the existing system permits. Collections fall into arrears, workmen are discharged, stocks fall to extremely low levels, commodity prices are disorganized by sacrifice sales, and the volume of business is violently contracted.

There follows a period during which depression spreads over the whole field of business and grows more severe. Consumer's demand declines in consequence of wholesale discharge of wage-earners. With it falls the business demand for raw materials, current supplies, and equipment. Still more severe is the shrinkage in the investor's

demand for construction work of all kinds. The contraction in the physical volume of business which results from these shrinkages in demand is cumulative, since every reduction of employment causes a reduction in consumer's demand, thereby starting again the whole series of reactions at a higher pitch of intensity.

With this contraction goes a fall in prices. For when current orders are insufficient to employ the existing equipment competition for business becomes keener. This decline spreads through the regular commercial channels which connect one enterprise with another, and is cumulative, since every reduction in price facilitates reductions in other prices, and the latter reductions react to cause fresh reductions at the starting-point.

The fall in prices is characterized by certain regularly recurring differences in degree. Wholesale prices fall faster than retail and the prices of raw materials faster than those of manufactured products. The prices of raw mineral products follow a more regular course than those of forest or farm products. Wages and interest on long-time loans decline in less degree than commodity prices. The only important group of prices to rise is high-grade bonds.

The contraction in the volume of trade and the fall in prices reduce the margin of present and prospective profits, spread discouragement, and check enterprise. But they also set in motion certain processes of readjustment by which the depression is overcome.

The prime costs of doing business are reduced by the fall in the prices of raw material and of bank loans, by the marked increases in the efficiency of labor which comes when employment is scarce, and by closer economy by managers. Supplementary costs are reduced by reduction of rentals and refunding of loans, by writing down depreciated properties, and by admitting that a recapitalization has been effected on the basis of lower profits.

While costs are being reduced, the demand for goods begins slowly to expand. Accumulated stocks left over from prosperity are exhausted, and current consumption requires current production. Clothing, furniture, and machinery are discarded and replaced. New tastes appear among consumers and new methods among producers, giving rise to demand for novel products. Most important of all, the investment demand for industrial equipment revives. Capitalists become less timid as the crisis recedes into the past, the low rates of interest on long-time bonds encourage borrowing, and contracts can be let on most favorable conditions.

Once these forces have set the physical volume of trade to expanding the increase proves cumulative. Business prospects become gradually brighter. Everything awaits a revival of activity which will begin when some fortunate circumstance gives a fillip to demand, or, in the absence of such an event, when the slow growth of the volume of business has filled order books and paved the way for a new rise in prices. Such is the stage of the business cycle with which the analysis begins, and, having accounted for its own beginning, the analysis ends.

75. SEASONAL VARIATIONS AND PANICS[1]

BY EDWIN WALTER KEMMERER

It has been found that the two periods of the year in which the money market is most likely to be strained are the periods of the "spring revival," about March, April, and early May, and that of the crop-moving demand in the fall; and that the two periods of easiest money market are the "readjustment" period, extending from about the middle of January to nearly the 1st of March, and the period of the summer depression, extending through the three summer months. Of the eight panics, four occurred in the fall or early winter (i.e., those of 1873, 1890, 1899, and 1907), and these four included two of the three really severe panics of the period (i.e., those of 1873 and 1907); three occurred in May (i.e., those of 1884, 1893, and 1901); and one (i.e., that of 1903), probably the least important one from the standpoint of the country as a whole, extended from March until well along in November.

The evidence accordingly points to a tendency for panics to occur during the seasons normally characterized by stringent money markets. This does not mean that the seasonal stringencies are the causes of the panics; it does mean that the months in which they occur are the weakest links in the seasonal chain, and that in periods of extraordinary tension the chain breaks at these links.

76. THE PERIOD OF DEPRESSION[2]

A few facts and figures will indicate the extent of the present industrial depression. Bank exchanges at all the leading cities of the United States were $2,073,910,424 for the week ending January

[1] Adapted from *Seasonal Variations in the Relative Demand for Money and Capital in the United States*, p. 222. (National Monetary Commission, 1910.)

[2] Adapted from an editorial in *Moody's Magazine*, V (1908), 151–54

30, 1908, a decrease of 23.3 per cent compared with the corresponding week of 1907 and 37.2 per cent compared with the corresponding week of 1906. The decrease in New York and Philadelphia exceeded 28 per cent, compared with 1906, and was greater than in any other cities.

For the first two weeks of January, 1908, gross earnings of railroads were about 13 per cent less than in 1907. For the last week in December they were 15.52 per cent below those of 1906. For the entire month of December gross earnings were 1.13 per cent, while net earnings were 17.46 per cent less than were those for December, 1906.

Transactions of the New York Stock Exchange amounted to 16,634,817 shares, compared with 22,712,420 in January, 1907.

The sharp falling off in the net earnings of the United States Steel Corporation in the last quarter of 1907 shows the remarkable decline in industry. The net earnings fell from $17,052,211 in October to $10,467,253 in November, and to $5,034,531 in December. This is a decline of over 70 per cent.

The unparalleled number of idle cars affords a barometer of our industrial condition. Today there are approximately 320,000 freight cars and 8,000 locomotives standing idle, representing an investment of more than $400,000,000, and there are more than 30,000 unemployed trainmen. And yet three months ago there were not enough railroad cars to move the traffic of the country.

The general state of industry and trade is summarized by Bradstreet's as follows: "It is safe to say that estimates of shrinkages of 30 to 50 per cent in sales and general turnover are not unreasonable. Iron output will probably be 50 per cent below a year ago. Shoe shipments are about 30 per cent below January, 1907. Lumber and all kinds of building material are very quiet the country over. Coke production, though larger than in December, is easily 50 per cent below the fullest capacity. Coal has been helped by cold weather, but is dull; stocks have accumulated because of past mild weather or of reduced industrial consumption, and there is talk of miners of bituminous coal being asked to take lower wages as an alternative to reducing production. There are widespread reports of large numbers of unemployed in all sections of the country, and some southern reports point to a return of idle city labor to the farms."

The returns for the prices of commodities show a probable decline of about 10 per cent in the cost of living.

The money market affords one of the best barometers of the great change that has come over the industrial situation. From a deficit of $54,103,600 on November 23, in the surplus reserves of the New York Associated Banks, there was a surplus of $40,626,725 on February 1. From rates of 25 per cent or more last fall for call money we now have rates of less than 2 per cent. From rates of from 7 to 12 per cent for time money last fall we now have rates of from 4 to 4½ per cent on Stock Exchange collateral and from 5 to 6 per cent on commercial paper. The return of hoarded money and the slackening demand for money in industrial and commercial operations are mainly responsible for this sudden transformation of the money market.

Already gold exports have begun from this country. They may reach a considerable volume before next July. Money rates, however, may be expected to remain about as at present. Money rates are being followed by rising prices for bonds and other secure securities. During January the price of bonds rose about twice as much as the price of common stock. Under existing conditions investors find bonds very attractive in view of the uncertainty of the situation. Many interior banks have put their idle funds in bonds on account of the comparatively high interest return they can secure by such a course.

77. BANKING CONDITIONS DURING DEPRESSIONS[1]

By WALTER W. STEWART

The business conditions prevailing during periods of depression bring about certain changes in the loans, the deposits, and the reserves of banks. Those concerns which are borrowers at the banks find that their declining volume of business can be financed with smaller banking accommodations. Consequently, as accounts are collected and goods are sold, the funds are first deposited and then used to pay their loans at the banks. This method of payment, by which the borrower gives back to the bank the desposit account and receives in return his canceled note, results in the reduction of deposits as well as the cancellation of loans. Both the loans and the deposits, therefore, are lower during the depression than during the prosperity. In case the banks have pursued a policy of loan contraction during the crisis preceding the depression, then early in the depression the

[1] From an unpublished article.

loans will increase. But it is an increase only as compared to the low point of the crisis, and not as compared to the period of prosperity.

The business conditions of depression are also reflected in the movement of bank reserves during the period, for the decrease in sales reduces cash requirements as well as credit requirements. The diminished volume of business causes merchants to keep less till-money; the increased unemployment causes wage-earners to carry less pocket-money; and the depositors who withdrew money during the crisis now redeposit it. This new distribution of money between the banks and the public results in an accumulation of reserve-money during the depression.

Thus it comes about that the cash held by the banks is actually increasing at the very time that the deposits are decreasing. The result is a favorable ratio between reserves and deposits, which in part explains the easy money market and the low interest rates characteristic of the depression.

78. BANKING POLICY IN PERIODS OF EXPANDING BUSINESS[1]

By O. M. W. SPRAGUE

At the beginning of the ten years of business activity which culminated in 1907 the banks were in an exceedingly strong condition, as is usually the case at the end of a long period of depression. During the four years following the crisis of 1893 the loans, deposits, and cash reserves for the banks fluctuated within narrow limits, reflecting the stagnant condition of trade. On October 5, 1897, against net deposits of $2,195,000,000, the national banks held a cash reserve of $388,900,000, giving them the tolerably high ratio of 17.7 per cent to deposit liabilities. Their loans also must have been of high average quality after four years of thoroughgoing liquidation and recuperation in the business world.

Beginning with the autumn of 1897, the cash reserves of the banks increased rapidly. At first the gain was due to gold imports secured through abnormally large grain exports to Europe, and afterward on account of increasing gold production, of which the United States acquired a considerable share. A further gain was secured indirectly as a result of the currency act of 1900. As a result of these various influences, the cash holdings of the national banks increased from $388,900,000 on October 5, 1897, to $701,600,000 on October 22, 1907.

[1] Adapted from *Crises under National Banking System*, pp. 216–26. (National Monetary Commission, 1910.)

With this increase of nearly $313,000,000 in their cash reserves it would have been possible for the banks to have nearly doubled their productive investments without diminishing the ratio of cash to deposit liabilities. As a matter of fact, these investments were increased far more than this.

The following table shows the changes in loans, net deposits (not including government deposits), cash reserves, and reserve ratio at the time of the early autumn return of the condition of the national banks from 1897 to 1907:

(Amounts expressed in millions)

	Loans	Net Deposits	Cash Reserve	Ratio to Net Deposits
				Per Cent
Oct. 5, 1897.....	$2,066	$2,179	$388.9	17.9
Sept. 20, 1898.....	2,172	2,404	420.7	17.5
Sept. 7, 1899.....	2,496	2,952	466.3	15.8
Sept. 5, 1900.....	2,686	3,187	518.5	16.2
Sept. 30, 1901.....	3,018	3,554	539.5	15.2
Sept. 15, 1902.....	3,280	3,720	508.0	13.7
Sept. 9, 1903.....	3,481	3,863	554.3	14.3
Sept. 6, 1904.....	3,726	4,400	661.5	15.0
Aug. 25, 1905.....	3,998	4,735	665.6	14.3
Sept. 4, 1906.....	4,298	4,927	626.0	12.7
Aug. 22, 1907.....	4,678	5,256	701.6	13.3

Every year witnessed an increase in loans (that for the last year of the series being the most considerable) and also in deposit liabilities. Cash reserves showed a gain, except in 1902 and 1906, but the reserve ratio was subject to greater fluctuations. Between 1897 and 1902 the decline was continuous, with the exception of 1900, when the banks enjoyed the benefit of the change in the requirement as to note issue from 90 per cent to the full par value of the bonds deposited as security. By 1902 the banks had evidently approached as near to legal-reserve requirements as they felt was consistent with safety, and thereafter loans and deposit liabilities were kept roughly within limits determined by the amount of cash holdings. It will be noted that in 1902 the banks were a little above and in 1906 somewhat below the ratio of reserve on August 22, 1907, the date of the last return before the crisis. That the banks were slightly stronger in cash in 1907 than in 1906 may be in part due to the earlier date of the return of 1907, nearly two weeks earlier than that for the corresponding period in 1906. It is evident, however, that the banks were at least

in, what was for them, a quite normal condition of strength just before the beginning of the crisis. But this was not on account of any exercise of restraint in making loans, since the increase during the previous twelve months was greater than for any other year of the period under review. Finally, it may be noted that the proportion of reserve to deposit liabilities which had become customary was distinctly less than it was during the years before either the crisis of 1873 or that of 1893.

Analysis of the condition of the banks by groups does not give different results in the case of the country banks and those of reserve cities. The net deposits of the country banks increased without interruption from $963,000,000 on October 3, 1897, to $2,527,000,000 on August 22, 1907. The reserve ratio, which was 11.6 per cent at the outset, declined rapidly and was constantly in the neighborhood of 7.5 per cent from 1902 onward; in 1906 it was 7.5 per cent; in 1907, 7.6 per cent. In the reserve cities also deposits increased with the exception of a single year, 1903, rising from $586,000,000 to $1,423,000,000. The reserve ratio was 17.8 per cent at the outset, but was in the neighborhood of 12½ per cent from 1901 onward. In 1906 it was 12.1 per cent; in 1907 it was 13.4 per cent.

The condition of the banks in the central reserve cities presents greater individual differences. In St. Louis deposits increased regularly with the exception of 1900. The reserve ratio of the St. Louis banks was below 25 per cent even in 1897 and was above that point in only one year, 1905. In 1906 it was 24 per cent and in 1907, 23.5 per cent. In Chicago deposits fell off somewhat in two years, 1900 and 1906, but increased from $105,700,000 in 1897 to $262,900,000 in 1907. Beginning with a high reserve ratio of 36 per cent in 1897 the Chicago banks soon broke away from the traditionally ample reserve which had characterized the banks of the city. In 1899 the reserve was 25.4 per cent, in 1902 only 21.9 per cent, and thereafter every autumn return showed a deficiency until 1907, when the banks held a cash reserve equal to 25.3 per cent of their deposit liabilities.

The upward tendency of loans was not so marked in New York as in the case of the banks in general. The $408,000,000 of New York bank loans in 1897 was nearly 20 per cent of all the loans of the national banks, while the $712,000,000 of loans in 1907 was just above 15 per cent of the total. Even at the beginning of the period the New York banks were able to find borrowers for all they were prepared to lend, and throughout the period they were evidently handling their

loan account so as to keep just above the 25 per cent requirement against deposits. They did no more than maintain the reserve position which previous experience had clearly shown to be inadequate, although the burden resting upon them through the relatively greater expansion elsewhere tended to increase. New York still maintained its commanding position as a debtor of national banks. There had been no marked change in the proportion of deposits due to national banks compared with the total deposits of the New York banks. They were 30 per cent of the total in 1897, nearly as much in 1906, and 27 per cent in 1907. The New York banks were comparatively as strong as in the past and under no greater relative obligations to other national banks. They might, however, reasonably have expected somewhat greater withdrawals in an emergency, because of the smaller cash reserve ratio of all the other banks in the system, though the probable difference on this account was not remarkably great.

During this period there was a startling increase in the number of state banks and trust companies, in consequence of which the banking situation as a whole is greatly complicated. On October 2, 1897, the net amount due from national banks to state banks of all kinds was only $185,600,000; on August 22, 1907, it was $646,000,000. In particular, the increase in the deposits of state banks and trust companies held by the New York banks was most striking, and might well have been considered alarming.

From a little more than one-third the aggregate of bankers' deposits in 1897 the deposits due state institutions had become in 1907 almost equal to those due the national banks. The aggregate of bankers' deposits had also become a slightly larger part of the total deposits of the New York banks, but the real importance of this growth is due to the fact that the cash reserves of the state banks and trust companies were notoriously inadequate.

79. BANKING POLICY IMMEDIATELY PRECEDING A CRISIS[1]

BY O. M. W. SPRAGUE

After the San Francisco earthquake on April 18, 1906, eighteen months before the crisis, there were indications in plenty that the pace was too rapid and that the equilibrium of economic forces was becoming increasingly unstable. That catastrophe destroyed an immense

[1] Adapted from *Crises under the National Banking System*, pp. 237–45. (National Monetary Commission, 1910.)

amount of capital, a loss which, through insurance, was widely distributed; but even if it had not occurred it is certain that demand for additional capital was outstripping current savings seeking investment. Increasing difficulty was experienced in marketing securities of the very highest class. The strain upon capital was world-wide, and in the United States municipal bonds whose sale would have been stimulated by distrust of business corporations could only be marketed when offered at lower prices or a higher rate of interest.

The inability to secure capital by the sale of securities in a period of active business should have been enough in itself to inspire unusual caution in the management of banking institutions. When corporations of the highest standing are obliged to resort to short-term notes it may be assumed without question that other corporations are expanding upon an insufficient foundation of working capital, that current obligations are increasing, and that bank credits are being used to their utmost extent. This probability might well have been recognized as a certainty when it appeared that during the latter half of 1906 and the first eight months of 1907 the loans of the national banks had increased more rapidly than at any time in the history of the system.

Increasing tension in New York, whenever comparatively slight contraction in loans took place, was another indication pointing to the same condition of affairs. It suggested that there were few persons in the community with idle funds available to take over either the loans or the collateral of borrowers, and that, consequently, any considerable liquidation of loans would be difficult, and, if carried through rapidly, disastrous.

Another indication of the approach of a period of declining activity in trade was the increasing ratio of costs reported in many industries. This is probably one of the most fundamental causes of industrial reaction and the necessity for an occasional period of recuperation. During the ten years before 1907 production in many branches had more than doubled; as, for example, coal, iron, and also railroad traffic. A far more rapid increase in the number employed in such occupations was made than was compatible with the maintenance of industrial efficiency. The incompetent could hold places because there were none to fill their positions, and there was no time to acquire skill by those capable of acquiring it.

As a result of these and other causes which might be mentioned there could be no doubt that the United States, like other countries, was about to pass through a period of reaction, though the exact

moment of its beginning could not be foreseen and might largely be determined by fortuitous circumstances. It was so probable that with each month of 1906 and 1907 the exercise of increasing caution might well have been expected in all responsible circles.

Little heed seems to have been given to these warning signs, but much was made of every straw which suggested a possible further advance. On July 31, 1906, dividends were resumed on the common stock of the United States Steel Corporation, and on August 18 the Union Pacific dividend was advanced from 6 to 10 per cent, and dividends were begun at the rate of 5 per cent on the shares of the Southern Pacific Railroad. Events seem to have proved conclusively the ability of these companies to earn the dividends which were then declared, but nevertheless, coming when it did, this action exercised an unfortunate general influence. It gave encouragement to the unbridled optimism which was already too much in evidence. It was preceded and followed by a speculative movement on the stock exchange, which was made possible through credits granted by the banks upon the foundation of the usual summer inflow of funds from the interior.

Despite the numerous evidences of danger during the early autumn of 1906 and the "rich men's panic" of March, 1907, when the severest declines occurred that have been known to the New York Stock Exchange, the banks of New York made no real preparation for the crisis that was obviously due. They were in slightly better shape in August, however, than they were a year earlier. The following table shows the situation:

(Expressed in millions)

	1907		1906	
	August 24	October 19	August 23	October 20
Loans	$1,088.0	$1,076.0	$1,071.0	$1,082.0
Deposits	1,048.0	1,025.0	1,053.0	1,062.0
Reserve	272.0	267.0	267.0	271.0
Surplus reserve	9.9	11.2	4.2	6.2

80. A SAMPLE FOREBODING[1]

By ELLIOT C. McDOUGAL

Until very recently no one admitted that his judgment dictated any policy of retrenchment. Gentlemen, we cannot hold the

[1] Adapted from an address before the New York State Bankers' Association, June 27, 1907. Quoted in *Bankers' Magazine*, LXXV, No. 1 (1907), 1–3.

present pace. We should not hold it, even if we could. Though our depositors do not realize this, our unpleasant but perfectly plain duty is to curtail their accommodation lines and force retrenchment. We are in an era of extravagance, both corporate and individual, of extravagance in enterprise and of extravagance in expenditure; extravagance as much beyond precedent as is our feverish business activity. No matter what this country's book-profits are, it cannot accumulate capital without thrift, and today thrift appears to be forgotten. At least a moderate amount of what is popularly known as "hard times" is the only cure.

Expansion is not confined to the industrial and commercial world. For years banking facilities have been expanding out of all proportion to the growth of cash reserves. For several years there has not been a week in which all the New York Clearing-House banks have held full reserves, and frequently half, or nearly half, have been short. The same tendency prevails throughout the country. Is it not time for bankers to check this undue expansion, to prune this tree too luxuriant for its roots, this fabric of credit built on an inadequate foundation of reserve? Consider that our reserves consist largely of balances due from other banks. The system of reserve agents, both in our state and national banking systems, with which you are all familiar, the abolition of which would be opposed by most if not by all the bankers in this room, contains possibilities of serious trouble; nay more, invites serious trouble.

For instance, a state bank near Buffalo receives a deposit of $10,000, which it redeposits with a trust company in Buffalo. The latter redeposits the amount with its reserve agent, a state bank in Buffalo; the state bank redeposits the amount with its reserve agent, a correspondent in Albany, and the Albany bank redeposits the amount with its reserve agent, a correspondent in New York City. Here is one $10,000 deposit, multiplied by five swelling discounts in this state by $50,000, and swelling so-called reserve by $42,500, against which the only cash reserve held is that of the New York bank, amounting to $2,500.

Is not this inflation? This is no imaginary case. Of course, each bank is supposed to keep a very small part of each deposit in reserve, in cash, but it frequently happens that each bank in the chain has a little surplus cash reserve, and that the operation is exactly as stated.

Now, what happens? The country depositor draws on his bank for $10,000, the country bank on the trust company, the trust com-

pany on the Buffalo bank, the Buffalo bank on the Albany bank, and the Albany bank on the New York bank. Deposits shrink $50,000; $42,500 of reserve vanishes.

Thousands of such operations occur daily, the countless ramifications of which are so interlaced that their effects are widely felt. In ordinary times these operations pass without notice. When our next financial disaster comes they will cause widespread disturbance and promote panic. We should remember that most of the reserve cities in the national system have sprung up in recent years, and were not in existence during the panic of 1893. The system has not stood the test of a financial crisis. I know that country bankers desire interest on their reserve accounts, and that banks in reserve cities desire such accounts. Nevertheless, I advocate that whatever reserve may be required by law, that reserve shall be in cash in each bank's own vaults, and that the present system of reserve depositaries, both state and national, be abolished as most unsound and dangerous.

81. INDEPENDENT BANKING THE CAUSE OF INFLATION[1]

BY VICTOR MORAWETZ

The managers of each bank have the power to regulate the amount of its loans and discounts and the expansion of its deposit liabilities in relation to reserves, having regard to the condition of the particular bank which they control; but in the United States bank managers have no power to regulate the expansion of credits of all the banks with a view to the security of the general credit situation, and have no power, through the issue and redemption of bank notes, to prevent sudden and wide fluctuations in the credit power of the banks resulting from the fluctuations of the volume of currency used as a circulating medium. Though the managers of fifty, or of a hundred, out of the seven thousand national banks may be of the opinion that, having regard to existing or prospective conditions, the expansion of credits has gone too far, they have no power to accomplish any substantial result. They could restrict the grant of credits by their own banks, and so lose profitable business that would go to other banks, but they could not materially improve the general situation. This was the case prior to the recent panic. For months before the panic many intelligent managers of banks and trust companies knew that the

[1] Adapted from *The Banking and Currency Problem in the United States*, pp. 36–42. (North American Review Publishing Co., 1909.)

credit situation throughout the country had become strained, and accordingly, by restricting credits and by making call loans instead of time loans, many of them endeavored to strengthen their own institutions, but they could do little for the protection of the general credit situation.

The point to which bank credits throughout the country may be expanded with safety depends upon many circumstances and varies from time to time. A ratio of reserves to liabilities may be perfectly safe under certain conditions and quite unsafe under other conditions. It is a fatal mistake to assume that bank credits always can be expanded with safety to the maximum allowed by the reserve requirements of the National Bank Act. Recent experience has shown that though the minimum reserves required under the National Bank Act are sufficient in ordinary times, they are not sufficient at all times, and that credits may be expanded beyond the limit of safety although the legal ratio of reserves to liabilities be maintained. It is not sufficient to consider merely the rate of interest in Wall Street. It is not sufficient to consider the rate of interest and financial conditions throughout the United States. It is necessary to consider the whole world. The financial and commercial relations between the leading countries of the world are so close that any shock affecting financial conditions in one country would be felt by them all. A great war, or a financial crash in any country, would affect financial conditions throughout the whole civilized world.

It is necessary to consider, also, the prospective expansion of business and the prospective demand for credits and currency throughout the world. Furthermore, allowance must be made for events that cannot be foreseen. There are times when exceptional conditions render necessary an exceptional expansion of bank credits or of the currency as a temporary measure of relief, as, for example, when a panic is threatened by reason of the sudden withdrawal of currency in unusual amounts to be hoarded by depositors who have lost confidence in the banks. In such case, however, safety requires that, as soon as the immediate need of the extraordinary expansion shall have been removed, bank credits and the currency shall again be contracted to a normal limit.

There are in the United States approximately seven thousand national banks, besides more than twice as many state banks and trust companies. Each of these institutions acts for its individual interest alone, independently of the others, and the prevailing tend-

ency of each at all times is to expand its credits to the limit permitted by law. The country banks lend their surplus resources in the form of deposits at interest to the banks in the larger cities, and the banks in the principal money centers commonly expand their credits as much as practicable by lending on call such sums as they deem it unsafe to lend on time or by discount of commercial paper. Each bank with a deposit in another bank assumes that, in case of need, it can strengthen its reserve by drawing upon this deposit; but it fails to consider that, when thus it strengthens its own reserve, it must to the same extent weaken the reserve of the other bank, and that the deposits of banks with other banks add no strength to the general credit situation. Each bank that has loaned money on call assumes that, in case of need, it can strengthen its reserve by calling such loans; but it fails to consider that, generally, when a loan is called the borrower is obliged to borrow the same sum from some other bank, although a high rate of interest may be exacted, and, therefore, that call loans affect the security of the entire bank situation practically to the same extent as time loans.

In the United States there is no way of regulating the supply of bank credits and of holding part of the potential supply in reserve for periods of financial stringency. Consequently, nearly always there is either an overabundance of money (meaning credit which the banks are ready to lend) or a money famine. It has been argued that the volume of credits granted by the banks depends upon business activity and upon the consequent demand for credit and not upon the power of the banks to grant credits, and, therefore, that the willingness of the banks to make loans at very low interest rates has little effect in causing an expansion of bank credits. Experience shows, however, that the contrary is the case, at least in the United States. It is true that when there is loss of confidence and when business is depressed interest rates are low, because there is less currency in circulation and more in the bank reserves, while at the same time the demand for bank credits is diminished. It is true, also, that the willingness of the banks to make loans at low interest rates will not stimulate speculation and enterprise unless people have confidence and are ready to speculate and embark in new enterprises. But we know by experience that when people are in a mood for speculation and for business expansion low interest rates operate as a powerful stimulus to speculation and business expansion. A leading banker has said: "In the long run commerce suffers more from the

periods of overabundance [of money] than from those of scarcity. The origin of each recurring period of tight money can be traced to preceding periods of easy money. Whenever money becomes so overabundant that bankers, in order to keep it earning something, have to force it out at abnormally low rates of interest, the foundations are laid for a period of stringency in the not far distant future, for then speculation is encouraged, prices are inflated, and all sorts of securities are floated until the money market is glutted with them."

82. THE CHARACTER OF THE PANIC OF 1893[1]

BY ALEXANDER D. NOYES

The panic of 1893, in its outbreak and in its culmination, followed the several successive steps familiar to all such episodes. One or two powerful corporations, which had been leading in the general plunge into debt, gave the first signals of distress. On February 20 the Philadelphia and Reading Railway Company, with a capital of $40,000,000 and a debt of more than $125,000,000, went into bankruptcy; on the 5th of May the National Cordage Company, with twenty millions capital and ten millions liabilities, followed suit. The management of both these enterprises had been marked by the rashest sort of speculation; both had been favorites on the speculative markets. The Cordage Company in particular had kept in the race for debt up to the moment of its ruin. In every month of the company's insolvency its directors declared a heavy cash dividend, paid, as may be supposed, out of its capital. In January, National Cordage stock had advanced 12 per cent on the New York market, selling at 147. Sixteen weeks later it fell below ten dollars per share, and with it, during the opening week of May, the whole stock market collapsed. The bubble of inflated credit being punctured, a general movement of liquidation started. This movement immediately developed very serious symptoms.

Panic is in its nature unreasoning; therefore, although the financial fright of 1893 arose from fear of depreciation of the legal tenders, the first act of frightened bank depositors was to withdraw these very legal tenders from their banks. Experience has taught depositors that in a general collapse of credit the banks would probably be the first marks of disaster. Instinct led them to get their

[1] Adapted from *Forty Years of American Finance*, pp. 188–93. (G. P. Putnam's Sons, 1909.)

money out of the banks and into their own possession with the least possible delay; therefore when the depositors of interior banks demanded cash, and such banks had as immediate reserve a cash fund amounting to only 6 per cent of their deposits, it followed that the eastern "reserve agents" were drawn upon in enormous sums.

On the New York banks the strain was particularly violent. During the month of June the cash reserves of banks in that city decreased nearly twenty millions; during July they fell off twenty-one millions more. The deposits entrusted to them by interior institutions had been loaned, according to the banking practice, in the eastern market; their sudden recall in quantity forced the eastern banks to contract their loans immediately. But in a market already struggling to sustain itself from wreck, such wholesale impairment of resources was a disastrous blow. In the closing days of June the New York money rate on call advanced to 74 per cent, time loans being wholly unobtainable. The early withdrawals by depositors in the country banks were only a slight indication of what was to follow. In July this western panic had reached a stage which seemed to foreshadow general bankruptcy. Two classes of interior institutions went down immediately—the weaker savings banks and private banks, distributed in various provincial towns, which had fostered speculation through the use of their combined deposits by the men who controlled them all.

In not a few instances country banks were forced to suspend at a moment when their own cash reserves were on their way to them from depository centers. Out of the total of 158 national bank failures of the year, 153 were in the West and South. How widespread the destruction was among other interior banking institutions may be judged from the fact that the season's record of suspension comprised 172 state banks, 177 private banks, 47 savings banks, 13 loan and trust companies, and 16 mortgage companies.

During the month of July, in the face of their own distress, the New York banks were shipping every week as much as $11,000,000 cash to these western institutions. Ordinarily, such an enormous drain would have found compensation in import of foreign gold, and, in fact, sterling exchange declined far below the normal gold import point. But the blockade of credit was so complete that operations in exchange, even for the import of foreign specie, were impracticable. Banks with impaired reserves would not lend even on the collateral of drafts on London.

83. EVENTS IN THE PANIC OF 1907[1]

By RALPH SCOTT HARRIS

In July, 1907, it was felt in every circle that business trembled on the edge of an abyss. A continued money stringency forced Secretary Cortelyou in August to make deposits in banks and accept as security state, municipal, and railway bonds. Beginning in September there was a tone of ill-concealed fright among the most hopeful. Only the financial papers attempted to coax themselves back into the old confidence. During the second week in October call loans in New York ranged from 2½ to 6 per cent; time loans from 6 to 7 per cent; commercial paper from 7 to 7½ per cent. In these two weeks there were twice as many failures as in the same period of 1906. There were five times as many manufacturing failures in September, 1907, as in September, 1906.

A series of bank failures precipitated the spectacular part of the crisis. The first intimation of upheaval was the failure of the Stock Exchange firm of which Otto C. Heinze was the head. The suspension was due to a failure to corner the copper market. There was a well-defined suspicion that F. Augustus Heinze, president of the Mercantile National Bank, was interested in his brother's ventures and that the bank was being "used" in this connection. He and his supposed allies fell into public distrust. Seven banks and a trust company, with capital of $21,000,000 and deposits of $71,000,000, were dominated by these interests. Believing them able to weather the storm, the Clearing-House Association agreed to help them out if Heinze and his associates were eliminated. This was done. A few days later, however, the National Bank of Commerce refused to clear any longer for the Knickerbocker Trust Company, whose president was thought to be allied with the suspected interests. The result was a run on the Knickerbocker Trust Company, which, after paying out $8,000,000 in three hours, closed its doors. Runs followed on the Lincoln Trust Company and on the Trust Company of North America. Following several conspicuous commercial failures other banks in New York closed for safety's sake.

Meanwhile the money scramble began. Banks were forced to try to call loans to be prepared for the demand of banks and individual depositors. The Secretary of the Treasury deposited $35,000,000 in national banks in New York in four days.

[1] Adapted from *Practical Banking*, pp. 250–57. (Copyright by the author. Published by Houghton Mifflin Co., 1915.)

Stock Exchange prices collapsed. A syndicate, headed by the late J. P. Morgan, stated that it would stand under the market, and placed $25,000,000 on call at 10 per cent; later $10,000,000 was made available at 50 per cent, the high price being fixed to discourage speculation. Soon the banks began to restrict cash payments; clearing-house loan certificates were issued. The demand for cash started a premium on currency the next week which continued the rest of the year. It offered an incentive for withdrawal of deposits. Large failures occurred as the result of the money stringency. On November 9 arrived the first large shipment of more than $100,000,000 in gold, imported to relieve the money stringency. The banks had already increased their circulating notes at this time.

But in the meantime the panic had seized the interior. Banks in most of the cities over 25,000 suspended cash payments. The clearing-houses stood guaranty on certificates. It is estimated that over $500,000,000 of substitute paper was issued. The country banks, having no clearing-house affiliations, suffered most. Many failures occurred among them.

Shipments of money to the West were made from New York. These varied from $4,400,000 for the week ending October 19 to $22,600,000 for the week ending November 16. In the week ending January 4 the tide turned and $5,500,000 was shipped to New York. The New York banks supplied the country with $125,000,000 between the beginning of the panic and the first of 1908. Still the reserves of the clearing-house banks were not seriously depleted, the importation of gold and the federal deposits having almost offset the loss of cash.

Perhaps the panic could have been localized had New York bankers been able to meet all demands without restriction. But restriction inspired country banks with a zeal to provide for any disaster. Hoarding followed. In December most country banks had higher reserves than at the beginning of the panic. The question which each country banker asked himself was, Can I afford to be less cautious than other bankers when I know the psychology of "panics" and "runs"?

84. THE HOARDING OF CURRENCY IN 1893[1]

By J. DeWITT WARNER

Then developed the feature that will forever characterize the stringency of 1893: instructive to those who have not already learned how immaterial is any ordinary supply of legal currency when

[1] Adapted from *Sound Currency*, III (1896), p. 240.

compared with credit in its various forms—the real currency of the country. Almost between morning and night the scramble for currency had begun and culminated all over the country, and the preposterous bulk of our circulating medium had been swallowed up as effectually as, in a scarcely less brief period, gold and silver had disappeared before the premium on specie a generation before. Currency was hoarded until it became so scarce that it had to be bought as merchandise at a premium of 1 to 3 per cent in checks payable through the clearing-house; and to enable their families to meet petty bills at the summer resorts the merchants and professional men of the cities were forced to purchase and send express packages of bills or coin, while savings banks hawked their government bond investments about the money centers in a vain attempt to secure currency.

85. THE STRAIN UPON NEW YORK IN TIME OF PANIC[1]

By O. M. W. SPRAGUE

The strain upon New York banks in emergencies is not limited to the withdrawals of balances by outside banks. Like the central money markets of other countries, New York is the cheapest market for loans in the United States, and is consequently resorted to by large borrowers from all sections. For this reason and on account of stock exchange and other financial dealings the demand for loans there is indefinitely large and attracts the surplus funds of the banks of the entire country. Loans of outside banks in New York are apt to be particularly large during those periods of months or even years when conditions are ripening for a crisis, because at such times the rates for loans in money centers always reach abnormally high levels. When a crisis does come, calls from the outside banks for the liquidation of their loans and the shipment of the currency received in payment are invariably even more in evidence than the drawing down of balances. The effects are far more disturbing, because of the shifting of loans which is involved.

There has been no crisis since the establishment of the national banking system in which the New York banks would have been at all likely to have resorted to suspension had their difficulties been confined to those of purely local origin. In 1873 the situation in

[1] Adapted from "Proposals for Strengthening the National Banking System," *Quarterly Journal of Economics*, XXIV, 1909–10, pp. 221–22.

New York was so far improved at the time the banks restricted payments that the necessity for it was generally questioned. It was subsequently explained in a clearing-house committee report that the measure was taken on account of the threatened exhaustion of the cash reserves of the banks in response to the demands of the interior banks for the return of their deposits. In 1893 there was nothing in the nature of a panic in New York itself when this discreditable step was again taken. The banks succumbed to the prolonged drain of money to the West and Southwest, where numerous bank failures had generally weakened public confidence. Again, in the crisis of 1907, at the end of the week in which the troubles of the New York trust companies became known, the local situation was showing such decided evidence of improvement that but for the increased demands of the outside banks it is certain that cash payments would have been maintained.

86. SUSPENSION OF SPECIE PAYMENTS[1]

BY O. M. W. SPRAGUE

If the banks of the money centers refuse or even delay the shipment of funds deposited with them, the thousands of country banks will inevitably discontinue remittances upon items sent to them for collection. But is the reverse equally inevitable? If the initiative is taken by the country banks, is that sufficient reason for the discontinuance or restriction of the shipments of money to the interior by the banks of the money centers? No, because the banks in the money centers reap great advantages from their position as clearing centers and as reserve agents. They incur a responsibility for maintaining the credit situation which does not rest upon the other banks.

Finally, what has been said of money centers generally in relation to the country banks applies with even less qualification to the responsibilities of the New York banks, to the banks of other money centers, and, indeed, to the banks of the entire country? There is always a chance that the New York banks, by meeting every demand upon them for cash, may be able to re-establish the ordinary course of payments between banks in different parts of the country, while nothing that the country banks and those of the secondary money centers may do can possibly bring this about. It follows, therefore, that even though in 1873, or on later occasions, some of

[1]Adapted from *History of Crises under the National Banking System*, pp. 61–69. (National Monetary Commission, 1910.)

the banks outside New York may have restricted payments before the suspension in New York, the general dislocation of the domestic exchanges is properly to be attributed to the banks of that city. A danger, therefore, which had been merely threatening became a reality at the moment the action of the clearing-house banks on Wednesday, September 24, became generally known. Similar steps were immediately taken in most of the secondary centers. In Boston, Philadelphia, Baltimore, Washington, New Orleans, Cincinnati, and St. Louis the issue of clearing-house loan certificates, and at the same time the use of certified checks, payable through the clearing-house, were sanctioned. While the use of loan certificates does not necessarily involve suspension, the fact that both measures were taken together in many places not unnaturally gave rise to the erroneous impression that suspension is an inevitable consequence of the issue of loan certificates. Moreover, in many cities, Chicago being the most important, as well as by the country banks generally, suspension of cash payments was quite as complete, even though they did not resort to the loan certificate.

When once the banks had resorted to suspension, various causes of disturbance, till then of minor importance, became serious. The amount of actual money required for a given volume of transactions was greatly increased. Uncertain whether the banks would provide the money which they might shortly need, many persons began to discontinue paying into the banks cash received in the course of their daily business. On September 30, for example, one of the Boston banks reported that many of their customers were depositing their currency in their own safes. The currency premium also tended to keep money from finding its way into banks. The premium on currency in terms of certified checks began in 1907 on October 31 at 2 (low) and 3 (high) per cent, and continued almost without interruption until December 31. The highest premium recorded was 4 per cent, on December 6, 12, and 13. Many retail shops in New York, it was said, sold to brokers their receipts in currency. Positive hoarding also seems to be increased by suspension, even though some money is brought into use by the possibility of realizing a profit from its sale at a premium. In 1873 at any rate the amount of money thus brought to light was unquestionably more than offset by the amounts which were locked up in savings banks. In New York alone the savings banks were estimated to have held from $13,000,000 to $20,000,000, and they were severely criticized for withholding this

money from the channels of trade. Such criticisms would have been well founded if the commercial banks had not resorted to suspension. The savings banks, having required thirty days' notice from depositors, were properly justified in holding themselves ready to meet the demands of those depositors who had already given notice.

87. THE NEW YORK VIEW OF INTERIOR CURRENCY SHIPMENTS[1]

The clearing-house committee knew by experience that the dissipation of the New York banking reserve, upon which practically the credit volume of the nation rests, would alarm the nation, intensify the panic, and greatly prolong the period of recuperation. New York bankers have been severely criticized because they did not more fully respond to the demands of country correspondents by shipping currency against balances. To have fully honored the demands that were pouring in from all sections of the country would have dissipated our banking reserve in a fortnight. How could it be replenished? Were the interior bankers sending currency to New York? What would have been the effect upon the country if the New York banking reserve had been entirely depleted? It would have so intensified the panicky feeling that widespread commercial disaster would have resulted. The $53,000,000 deficit in our banking reserve occurred in less than ten days after the failure of the Knickerbocker Trust Company, and was caused by the shipment to interior institutions of the larger portion of that amount in that short time. We kept the door of our treasure house wide open until for the good of the country it became necessary everywhere to close it. It never was fully closed; currency shipments continued in a restricted way throughout the panic, and a larger number of our banks kept up their counter payments as usual.

88. LOANING POLICY DURING A CRISIS[2]

BY O. M. W. SPRAGUE

The "banking stage" of a crisis and the efforts made by the banks to weather the storm may best be studied in connection with the crisis of 1873, since the statistical data for this panic are far more extensive than those which we have for the later crises of 1893 and 1907.

[1] From *Commercial and Financial Chronicle*, Bankers' Convention Supplement, October 10, 1908, p. 84.

[2] Adapted from *History of Crises under the National Banking System*, pp. 82–84, 303–5. (National Monetary Commission, 1910.)

Abstracts of the regular report of September 12 and of the two special returns for October 13 and November 1 are presented in the accompanying table. (The crisis came to a head on September 20.) The report of November 1 was after the panic, and is of importance only in showing the rapid recovery of the banks. Attention should be given chiefly to the changes which occurred between September 12 and October 13. The following table shows the changes in loans for the banks as a whole for the three groups of banks

(Expressed in millions)

	Country Banks	Reserve City Banks	Banks in New York	Total
Sept. 12, 1873.....	$478.5	$262.5	$199.2	$940.2
Oct. 13, 1873.....	455.8	247.5	179.1	882.4
Nov. 1, 1873.....	442.0	242.2	169.1	853.4

The contraction of loans to October 13 may be taken as representing the extent of contraction which was due to and which in turn contributed to the severe financial strain of the crisis. The further contraction to November 1 represented the diminishing requirements of business owing to trade depression. By the banks as a whole loans were reduced by $58,000,000 before October 13, or slightly more than 5 per cent. This contraction was general, both the country banks and those in reserve cities showing a contraction of about 5 per cent and those in New York a more considerable contraction of 10 per cent. The most severe contraction among city banks was in Chicago, where, doubtless owing to the decision of the banks not to issue clearing-house loan certificates, loans were reduced from $25,300,000 on September 12 to $19,000,000 on October 13.

In this, as in other American crises, a somewhat exaggerated opinion became current as to the extent to which the banks required borrowers to liquidate their loans. Difficulty experienced in disposing of commercial paper through note brokers and the high rates for call loans seem to have been grounds for this erroneous impression. Under our banking system borrowers unable to dispose of their paper through note brokers in times of crisis resort more largely to the particular banks which hold their accounts than is usual at other times. This shifting of loan relationships gives rise to an impression of wholesale contraction which the statistics of the total loans of the banks show to be unfounded.

The statistical data for the crisis of 1907 are far from satisfactory. The first of the two returns made was on August 22, about two months before the crisis, and the second, on December 3, came after the worst of the panic was passed. For 1907 it is necessary to assume that no great change had taken place in the condition of the banks between the end of August and the middle of October, an assumption which, judging from the weekly bank statement in New York, Boston, and Philadelphia, is not far from the facts of the actual situation. It would, however, be somewhat hazardous to draw conclusions if it were not that the same tendencies are disclosed which were so clearly manifest both in 1873 and in 1893.

As in former periods of crisis, the reserves of the banks, taken as a whole, were not made use of to any considerable extent. On August 22 the banks held $701,600,000, and on December 3, $660,800,000—a loss of only $40,800,000. If the holding of the notes of other banks are included, this loss is reduced to only $31,400,000. This cash loss can be more than matched on many occasions when conditions were entirely normal, e.g., between August 25 and November 9, 1905, when the reserves of the banks fell off more than $43,000,000. By means of loan contraction, the loss in cash, and the diminution in indebtedness between the banks, net deposits were reduced from $5,256,000,000 to $4,629,000,000, and there was a slight increase in the proportion of cash held, which advanced from 13.35 per cent to 13.45 per cent. This slight increase in the reserve ratio was entirely in accord with the precedent, and its explanation is to be found in changes in the condition of the country banks, which are shown in the following table:

(Expressed in millions)

	August 22	December 3	Decrease
Loans	$2,401.0	$2,324.0	$ 77.0
Net deposits	2,627.0	2,485.0	142.0
Cash reserve	199.6	246.0	47.6*
Percentage of reserve	7.6	9.9	.....
Net deposits with reserve agents	410.0	356.0	54.0

* Increase.

The increase of $47,600,000 in reserves of this group of banks exceeded by $6,800,000 the total loss in reserves of the banks taken as a whole. There is no reason to believe that country banks were endeavoring to hoard the money which they withdrew from their

reserve agents at the beginning of the crisis. They needed additional supplies of cash if they were to meet the demands of their own depositors. But after the New York banks suspended and suspension became general they naturally held with a tight grip all the money which they had in their possession at the moment and also very naturally endeavored to extract more from their reserve agents. The withdrawal of money was entirely in accord with what the teachings of past experience ought to have led reserve agents to expect and to be in readiness to meet.

89. POSITION OF BANKS IN TIME OF PANIC[1]

By H. J. DAVENPORT

The panic cannot be controlled, once it has started, by any policy of restriction of credit, but only by generous extension. The creditors are hurrying their debtors mostly because of the danger of being themselves hurried, or because of the danger that delay may mean that some other creditor may by his promptitude make himself the sole creditor paid or the sole creditor obtaining adequate security. Were really solvent debtors sure of obtaining credit in case of serious pressure, there would be few creditors to press them.

In fact, also, if the creditors were sure of credit for themselves in case of need, there would be less occasion for pushing the debtors. And if these creditors, in turn, were not in danger of being pushed by other creditors, themselves straitened in credit and themselves fearful of the possible failure of the debtor to obtain credit under serious need, this last occasion of credit pressure would be mostly removed. The banks stimulate a call upon themselves for credit by X, Y, and Z. And if the creditors of X, Y, and Z make demands upon them, and the banks refuse to give credit to X, Y, and Z, these men are driven, in their turn, to place pressure upon still other debtors. The hurry grows with the restriction of credit, and the further restriction of credit adds to the hurry. The process is a geometrical progression. And immediately that no one can get credit to pay with there is a frightened scramble to enforce payment in money, to get money to pay with, to hoard money against possible necessities. The attempt of the banks to hold fast to their reserves is the very force which is prompting the taking them away; depositors under

[1] Adapted from *Economics of Enterprise*, pp. 285–88. (The Macmillan Co., 1913.)

pressure are withdrawing funds to meet claims in other centers, or, suspicious of the continued ability of the bank to pay upon demand, or suspicious of the ultimate solvency of the bank, are calling for cash to be hoarded. The fact is that it is not necessary that a stringency have already arisen in order to bring about the panic stringency; merely the menace of stringency is necessary.

The difficulty is not precisely in the fact that some banks purport to hold in large part, but actually do not hold, the reserves of other banks; that under our system of redepositing reserves more than three-fourths of the reserves, computed as somewhere else, are really not where they are supposed to be, but instead are still somewhere else, where, in turn, they really are not, and that, therefore, in times of stress the banks themselves are the most serious sources of pressure upon one another; that the banks are not only themselves among the very depositors whose calls are so disastrous, but are, of all the depositors, the ones likely to be first in their calls. Although all this is serious enough, the ultimate difficulty is that the very process by which all the banks at once are trying to strengthen their reserves is an altogether impossible process, a paradox, a deathblow at the very fundamental principle of banking. Any general attempt to convert banking paper or deposit credit into gold must promptly issue in a lamentable collapse of the whole credit machinery. The last people to make this attempt should be the bankers themselves. If other interests attempt it, the banker's duty is to intervene to save the situation. The attempt must in any case fail, but all sorts of calamity must attend this effort at the impossible. When the banks themselves join in the scramble, the last hope of supporting the credit fabric has vanished.

90. TREASURY AID IN TIME OF CRISIS[1]

BY DAVID KINLEY

I. BY DEPOSIT OF FUNDS

During the ten days from October 21 to 31, 1907, the Treasury transferred to the national banks of New York city $37,597,000, which the banks immediately advanced to the trust companies to meet the

[1] Adapted from *The Independent Treasury of the United States and Its Relation to the Banks of the Country*, pp. 257–60. (National Monetary Commission, 1910.)

run on them. In order to aid the banks in meeting the demand of the interior for currency, the Treasury Department in three days furnished the New York banks about $36,000,000 in small bills. "As the stringency progressed the Treasurer gave relief in every important locality where assistance seemed to be required. By the middle of November the Treasury had deposited in the banks all the money it could spare; indeed, it had reduced its working surplus to about $5,000,000."

An analysis of the entire problem of treasury aid in time of crisis shows that the independent treasury exercises a beneficial influence only in the earlier stages of a crisis caused by a speculative advance of prices; that in the later stages of such an occurrence its influence is evil to a greater or less degree, according as its receipts happen to exceed or to be less than its disbursements; that in a stringency caused by a rapid but healthy increase of business its absorptive influence is wholly bad, but that in the later stage of such a crisis its disbursements are promotive of good, unless mismanaged or too long delayed.

Hence we see that the coincidence of a particular phase or stage of the progress of a crisis is necessary in order that the influence of the subtreasury may be beneficial. But such a coincidence is purely fortuitous, and this fact deprives the system of all value as a scientific mode of relief in crises.

II. INDIRECT AID

Further to relieve the situation Secretary Cortelyou notified the national banks that they might substitute "bonds suitable for savings banks investments for government bonds which were held as securities against public deposits." The Secretary's purpose in doing this was the same as that of Secretary Shaw in resorting to the same device four years previously. He wished to increase the volume of United States bonds available for circulation. Under this stimulus the circulation of the national banks increased by December 21, 1907, to $83,012,153. Still the difficulty of obtaining bonds and the awkward machinery of administration in issuing national-bank notes had the usual result of making the increase of circulation virtually ineffective until after the need for it had passed away. The volume of national-bank currency increased by $24,000,000 between October 15 and November 15, but at the close of the year, it had risen much

more. The circulation continued to increase, however, although the demand for it no longer existed, until, about the middle of January, it became $695,927,806.

Of course the usual effect on the price of bonds followed. The increased demand drove up the 2 per cent bonds as high as 110, and even at that price the amount available was regarded as too small. Accordingly the Secretary thought it necessary to adopt additional means to relieve the situation, and on November 17 he offered a loan of $50,000,000 in Panama Canal bonds under authority of the act of June 28, 1902, and $100,000,000 of 3 per cent certificates of indebtedness under the act of June 30, 1898. Of the bonds only $24,631,980 were taken by the public and $15,436,500 of the loan certificates. It is a little difficult to understand the reason for this action unless the Secretary hoped to sell the bonds and securities to people who were hoarding money. Of course the purchase of these securities by the banks, or by people who were not hoarding, simply reduced the circulation and would have made the situation worse. In order to avoid this, however, the Secretary transferred part of the purchase money to the banks. Therefore with one hand he was withdrawing money from circulation in payment of his bonds and with the other was restoring it by depositing it in the banks. The banks which purchased these securities were allowed to retain 90 per cent of the purchase price of the Panama bonds as a deposit and 75 per cent of that of the certificates.

In addition to these positive means of assistance undertaken by the Secretary of the Treasury, the Comptroller of the Currency, fearing that a revelation of their condition would add to the panic in a measure, decided to postpone the call on the national banks for a report in November. This action operated favorably, because the banks were putting themselves in shape to meet the call. The delay made them more cautious in making discounts and lowering their reserves. Evidence that this was the case is found in a statement of the Secretary himself that "the fact that a call had been made and a report submitted contributed another favorable factor to the situation immediately afterwards by enabling the banks to release a part of this accumulated cash to meet the pressing needs of their clients, with the knowledge that they would probably be able to fully reinstate their reserves before another call was made by the Comptroller."

91. THE NEED IN TIME OF CRISIS[1]

By J. LAURENCE LAUGHLIN

It will probably appear to many that the demand of the public for expanding issues of currency is of vital importance in a time of financial distress, such as that in the autumn of 1907. It is supposed that in a time of stringency the public will demand more circulation; and to support this view the events of the panic of 1907 have been drawn upon as proof. It is true, of course, that government or bank notes could not be had in most cities during the height of the panic of 1907, even in small sums; and as a consequence the clearing-house associations issued clearing-house notes (as distinct from clearing-house loan certificates) for circulation among the public. Without doubt this inability to get cash for a small check on a bank or at a paying office made a deeper impression on the minds of the people than any other event during the panic. It was, as everyone must admit, a striking commentary on the inadequacy of our banking and monetary system that it was impossible for the banks to supply to employers of labor and for the small needs of every day a relatively small amount of currency having a general circulation. Yet, on the other hand, it is a fact that the total amounts of the clearing-house notes for the use of the public were not large, nor were they long outstanding. Moreover, as affecting the ability of the producing and trading firms to weather the stress of the panic, they had practically no influence whatever.

The power to expand their note issues (which are liabilities) could not have added to the cash reserves of the banks and thus have enlarged their power to aid needy borrowers. It is true, however, that an expansion of note issues would have aided the banks indirectly; it would have allowed them to satisfy the urgent demand of the public for a medium of exchange by passing out their notes, and thus would have enabled them to retain lawful money which could be used as reserves to support their loans and deposits.

The reserve city bank which can quickly increase its own notes can also supply the demands made upon it by country national banks and correspondents—provided the country bank wishes only currency for circulation in the neighborhood and not for its own reserves. Here, again, the new bank issues do not give the pivotal

[1] Adapted from "Banknotes and Lending Power," *Journal of Political Economy*, XVIII (1910), pp. 779–83.

aid which some suppose always comes from additional circulation. Not being lawful money they could not be used in reserves, and therefore would not—and could not—improve the lending power of the local country bank. They would, however, supply currency to the country bank which could be paid out, if urgently demanded, and thus indirectly protect reserves.

Another advantage in emergency bank notes, of course, is the opportunity they present to national banks having relations with state banks and trust companies. By issuing their own notes they may exchange them for lawful money held by banks outside the national system. In this way they can indirectly increase their lawful money, and consequently their power to lend.

But, primarily, the issue of bank notes is for circulation in the hands of the public and not for any serious advantage which they render in increasing the power of the banks to lend and stave off a panic. The real difficulty resides, not with the general public and the media of exchange—for checks are as good as ever as a medium of exchange if there are deposit accounts on which they can be drawn—but with the banks, with the power of the banks to expand their loans in a time of stress. This is the pivotal thing in any plan to relieve the distress of a financial panic.

92. BOND-SECURED NOTES AND CYCLICAL ELASTICITY[1]

Bank notes secured by bonds are open to several serious objections from the standpoint of elasticity. In the first place the bonds sell above par and bear a low rate of interest; and yet, in times of financial stringency, the rate of discount is sure to be high, and borrowers are in great need of loans. As against buying bonds bearing a low rate of interest in order to issue notes, there is the opportunity for the banks to loan such funds directly at the high market rate of discount. The situation, therefore, puts a premium upon the direct use of banking capital, as against the method of investment which leads to increasing the bank-note circulation. In those communities where bank notes are essential to making discounts this is a serious obstacle. In short, at the time or place of pressing demand under the existing system the supply of notes is not forthcoming.

On the other hand, if the country is suffering from business depression, if funds are accumulating in the banks, and if the market

[1] Adapted from *Report of the Convention of Indianapolis Monetary Commission* (1898), pp. 228–30.

rate of interest is low because there are few opportunities of profitably employing capital, then it would not be impossible to expect the banks to use superabundant funds in buying bonds of a low rate of interest. Therefore, at a time when the demand for loans is slight and the rate of discount low, it would be easy for the banks to invest in bonds and thereby obtain notes. In short, when there is no demand the supply is easily obtained. It needs no further comment, consequently, to see that such a system of note issues works at cross-purposes with the needs of the public. With a deposit of bonds for security of notes, there is no supply of notes at a time when most needed and an abundant supply of notes when least needed.

To give concrete examples, the financial panic of 1890 caused a fall in the prices of government bonds, and thereby increased the chances of profit on the circulation of national bank notes. As a result there was a net increase of $13,000,000 in their circulation in 1891 and of $8,000,000 in 1892. Now, in these two years, there was absolutely no demand for an increase in the circulating medium of this country; on the contrary, the Treasury Department in these years was injecting arbitrarily between $25,000,000 and $50,000,000 of silver paper money into the currency of the country, as a result of the Silver Purchase Act of 1890, and gold, in consequence, was being exported at a rate which alarmed business men and finally precipitated the panic of 1893.

"During 1893 the 4's of 1907 sold down to 113, and the banks added to their circulation $37,000,000. During the months of June, July, and August of that year there was a most urgent need for an expansion of the currency; but during these months the new national bank notes did not appear. Not until after the panic was over and money was piling up in all the financial centers—a drug on the market—did the increase in the national bank note circulation take place. As a result of the panic, business being depressed, the interest rate on prime commercial paper during 1894, 1895, and 1896 was between 3 per cent and 4 per cent. The money supply of the country was in excess of its needs and gold was exported in large amounts. The Treasury, embarrassed by the withdrawals of gold, was forced to issue bonds in order to maintain the gold reserve. These bond issues forced down the prices of bonds, and thus increased the profit which banks could make upon new circulation. Therefore, considerable idle banking capital, which could be loaned barely at 3 per cent in business, was exchanged for government bonds and made the

basis for bank notes, so that in 1895 and 1896 there was a net addition to the bank note circulation of $32,000,000. Thus, the national bank note helped to embarrass the government by inflating the currency at a time when the government was doing its utmost to hinder inflation and prevent the exportation of gold to Europe."

Secondly, it should be noted that when the necessities of business urgently demand additional notes, even if the price of bonds should be such as to make the issue profitable, the delays incident to the purchase of bonds, the taking out of circulation upon them, etc., would make it impossible to obtain the currency until all need for it was practically past. Under such a system, therefore, banks must refuse to customers additional supplies of notes upon sudden demand even though the community in such circumstances has enlarged its currency need and an additional supply may, therefore, without additional strain on the bank, be kept in circulation. Under such circumstances, if notes are an essential to the borrower, rates for loans rise abnormally and crisis conditions are vastly intensified. Probably the best illustration of this delay in responding to demand was seen in the difficulty of obtaining currency during the summer of 1893, when it was practically impossible to secure a sufficient supply of a circulating medium of any sort. The New York banks held on June 1, 1893, a surplus of $21,000,000 in excess of their legal reserve. At that time the volume of national bank notes outstanding was about $177,000,000. By the first of August extraordinary demands for currency had drawn down the reserves $14,000,000 below the legal minimum and yet the outstanding notes were only about $5,000,000 more than on June 1. By September 1, however, when the reserves were but $1,500,000 below the minimum, and the urgency was past and currency once more comparatively abundant, the notes had begun to expand and had already reached $199,800,000, subsequently rising to $209,300,000 on November 1, notwithstanding the continued decrease in the demand for them.

93. INTEREST ON DEPOSITS AND BANK-NOTE INELASTICITY[1]

BY O. M. W. SPRAGUE

During periods of inactive trade the amount of bank notes sent to Washington for redemption invariably reaches large proportions. The city banks are chiefly responsible for this movement. Something like half the notes are sent in by the New York banks alone,

[1] Adapted from "Proposals for Strengthening the National Banking System," *Quarterly Journal of Economics*, XXIV (1909-10), pp. 639-40.

which, when rates for call loans are persistently below 2 per cent, are naturally desirous of reducing bankers' balances swollen by the receipt of idle funds from all quarters. But the redemption of the notes does not secure contraction. All the banks, more particularly the country banks and those of the smaller cities, make haste to reissue notes, thus setting free an equivalent amount of money, which in the absence of local demand is shipped to the money centres for the sake of the interest to be had from the city banks. There is a sort of endless chain, the working of which can be interrupted only by the discontinuance of the present practice of paying interest on bankers' deposits. Were that inducement removed, our bond-secured notes would prove to be susceptible of a considerable measure of contraction. Even if the banks continued to reissue their notes as regularly as at present, contraction would still take place. An equivalent amount of money would be locked up in the banks, since they would reap no advantage from sending it to the money centres. Moreover, even if it were sent thither the pressure on city banks to force a demand for loans by the offer of low rates would be removed and they would doubtless maintain a higher reserve level.

94. CLEARING-HOUSE LOAN CERTIFICATES AND EQUALIZATION OF RESERVES[1]

By O. M. W. SPRAGUE

In 1893 and in 1907 the clearing-house loan certificate was the only device resorted to in order to secure the adoption of a common policy by the banks. In 1873, as on earlier occasions when its use was authorized, provision was also made for the equalization of the reserves of the banks. Thus in 1873 the Clearing-House Association, in addition to the customary arrangements for the issue of loan certificates, adopted the following resolution:

> That in order to accomplish the purposes set forth in this agreement the legal tenders belonging to the associated banks shall be considered and treated as a common fund, held for mutual aid and protection, and the committee appointed shall have power to equalize the same by assessment or otherwise at their discretion. For this purpose a statement shall be made to the committee of the condition of such bank on the morning of every day, before the opening of business, which shall be sent with the exchanges to the manager of the Clearing-House, specifying the following

[1] Adapted from "Proposals for Strengthening the National Banking System," *Quarterly Journal of Economics*, XXIV (1909–10), pp. 232–39.

items: (1) Loans and discounts. (2) Amount of loan certificates. (3) Amount of United States certificates of deposit and legal-tender notes. (4) Amount of deposits, deducting therefrom the amount of special gold deposits.

Two fairly distinct powers were given the clearing-house committee: the right to issue clearing-house certificates, and control over the currency portion of the reserves of the banks. This machinery was devised (according to tradition) after the crisis of 1857 by George S. Coe, who for more than thirty years was president of the American Exchange National Bank. The purpose of the certificate was to remove certain serious difficulties which had become generally recognized during that crisis. The banks had pursued a policy of loan contraction which ultimately led to general suspension, because it had proved impossible to secure an agreement among them. The banks which were prepared to assist the business community with loans could not do so because they would be certain to be found with unfavorable clearing-house balances in favor of the banks which followed a more selfish course. The loan certificate provided a means of payment other than cash. What was more important, it took away the temptation from any single bank to seek to strengthen itself at the expense of its fellows and rendered each bank more willing to assist the community with loans to the extent of its power.

But in addition to the arrangement for the use of loan certificates provision was also made for what was called the equalization of reserves. The individual banks were not, of course, equally strong in reserves at the times when loan certificates were authorized. From that moment they would be unable to strengthen themselves, aside from the receipt of money from depositors, except in so far as the other banks should choose to meet unfavorable balances in cash. Moreover, withdrawals of cash by depositors would not fall evenly upon the banks. Some would find their reserves falling away rapidly with no adequate means of replenishing them. The enforced suspension of individual banks would pretty certainly involve the other banks in its train. Finally, it would not be impossible for a bank to induce friendly depositors to present checks on other banks directly for cash payment, instead of depositing them for collection and probable payment in loan certificates, through the clearing-house. The arrangement for equalizing reserves therefore diminished the likelihood of the banks working at cross-purposes—a danger which the use of clearing-house certificates alone cannot entirely remove.

These arrangements had enabled the banks to pass through periods of severe strain in 1860 and in 1861 without suspension. In both instances the use of the loan certificate was followed immediately by an increase in the loans of the banks, and in a short time by an increase in their reserves. The stipulation in 1873 was more serious, and, as events proved, the reserve strength of the banks, while sufficient to carry them through the worst of the storm, was not enough to enable them to avoid the resort to suspension.

In 1884, the next occasion when clearing-house loan certificates were issued, the opposition to the provision for the equalization of reserves was so widespread that it does not appear that it was even formally considered. The ground for this opposition can be readily understood. In 1873 the practice of paying interest upon bankers' deposits was generally regarded with disfavor. Only twelve of the clearing-house banks offered this inducement to attract deposits; but by this means they had secured the bulk of the balances of outside banks. It was in meeting the requirements of these banks that the reserves of all the banks were exhausted at that time. The non-interest-paying banks entered into the arrangement by the equalization of reserves in expectation of securing a clearing-house rule against the practice of paying interest on deposits. But their efforts had resulted in failure. Some of them had employed their reserves for the common good most reluctantly in 1873, and the feeling against a similar arrangement in 1884 was naturally far stronger and more general. Moreover, the working of the pooling agreement in 1873 had occasioned heartburnings which had not entirely disappeared with the lapse of time. It was believed, and doubtless with reason, that some of the banks had evaded the obligations of the pooling agreement. It was said that some of the banks had encouraged special currency deposits so as not to be obliged to turn money into the common fund. Further, as the arrangement had not included bank notes, banks exchanged greenbacks for notes in order either to increase their holdings of cash or to secure money for payment over the counter. Here we come upon an objection to the pooling arrangement which doubtless had much weight with the specially strong banks, although it is more apparent than real. In order to supply the pressing requirements of some banks, others who believed that they would have been able to meet all the demands of their depositors were obliged to restrict payments. That such an expectation would have proved illusory later experience affords ample proof. When

a large number of the banks in any locality suspend, the others cannot escape adopting the same course. But in 1884 the erroneousness of the belief had not been made clear by recent experience.

The New York banks weathered the moderate storms of 1884 and 1890 without suspension by means of the clearing-house loan certificate alone, and in the course of time all recollection of the arrangement for the equalization of reserves seems to have faded from the memory of the banking community.

In 1893 only a small part of the balances between the banks was settled in certificates at first; but by the end of July practically all balances were settled in that way and suspension followed at once. In 1907 all the banks having unfavorable balances, with but one important exception, took out certificates on the first day that their issue was authorized, and suspension was then for the first time simultaneous with their issue.

The connection between suspension and the use of clearing-house loan certificates as the sole medium of payment between the banks is simple and direct. The bank which receives a relatively large amount of drafts and checks on other banks from its customers cannot pay out cash indefinitely if it is unable to secure any money from the banks on which they are drawn. So long as only a few banks are taking out certificates and the bulk of payments are made in money no difficulty is experienced; but as soon as all the banks make use of that medium the suspension of the banks which have large numbers of correspondents soon becomes inevitable. The clearing-house loan certificate was a device which the banks themselves had adopted, and they had failed to provide any means for preventing partial suspension as the result of its use. That the arrangement for equalizing the reserves, adopted in 1873, would have availed to prevent suspension on subsequent occasions is highly probable, indeed a practical certainty.

The reserve situation in 1893 and 1907 was by no means desperate at the time of suspension. In 1893 the New York banks were in what was for them an unusually strong condition at the beginning of the disturbance, having early in June a cash reserve exceeding 30 per cent of their net deposits. A succession of banking failures in the West and South led to heavy withdrawals from New York during the latter part of June and the beginning of July. Then followed a lull and money began to be returned to New York. During the third week of July banking failures were renewed in the West and

South and the drain was resumed. The positively unfavorable aspects of the situation were altogether similar to those of the previous month, with the one further circumstance of a reduced cash reserve in New York. On the other hand, additional means with which to meet the situation were becoming available. At the end of July gold imports in large amounts had been arranged. Foreign purchases of our securities were heavy, reflecting increasing confidence in the repeal of the silver-purchase law. Arrangements had also been made which would certainly lead to a considerable increase in the issues of bank notes during August and September. Notwithstanding all these favorable circumstances the New York banks suspended, during the first week of August, when they still held a cash reserve of $79,000,000, more than 20 per cent of their deposit liabilities.

In 1907 the New York banks restricted payments when they still held a cash reserve of more than $220,000,000 and when the reserve ratio was also above 20 per cent. Both in 1893 and in 1907 suspension was not a measure of last resort taken after the banks had entirely exhausted their reserves and when there were no means of securing additional cash resources. Moreover, after cash payments were restricted the policy of the banks was unlike that adopted in 1873 in that the banks did not make further use of their reserves; they hoarded them and added to their amount, thus unduly prolonging the period of suspension.

95. SUBSTITUTES FOR CASH IN THE PANIC OF 1907[1]

By A. PIATT ANDREW

Reports from the 145 largest "independent" cities show that during the disturbance of 1907 in at least 71, or nearly half, resort was made by the banks to clearing-house loan certificates, clearing-house checks, cashiers' checks payable only through the clearing-house, or other substitutes for legal money; in 20 others the larger customers of the banks were asked to mark their checks "payable only through the clearing-house"; and in at least one other, where these practices were not pursued, the size of checks that would be cashed was restricted. Roughly speaking, in two-thirds of the cities of more than 25,000 inhabitants the banks suspended cash payments to a greater or less degree.

[1] Adapted from "Substitutes for Cash in the Panic of 1907," *Quarterly Journal of Economics*, XXII (1907-8), 501-16.

Seven different types of substitutes for cash have been distinguished, though some of them closely resemble each other. There were also many variations in the various individual types.

A. The familiar expedient of issuing clearing-house loan certificates in denominations ranging from $500 to $20,000 for use in settling interbank balances has never been resorted to upon such a scale as in 1907. During the panic of 1893 eight cities were reported to have employed them; but during the disturbances of 1907 they were used by no less than 42. The aggregate issue of regular clearing-house certificates in the entire country during the panic of 1907 was 238 millions, or nearly three and a half times the total of 1893.

B. During the panic of 1893, for the first time clearing-house associations issued certificates in currency denominations to be used by the banks in paying their customers. Their issue, however, was practically confined to the southeastern states. In the panic of 1907 Georgia was again, as in 1893, the center for emergency circulation of this sort, what were called "clearing-house certificates" being issued in at least 21 Georgia towns; but devices of that name were also put in circulation in many other parts of the country, and not infrequently even by banks of small towns, where no clearing-house had ever existed. In such cases they were issued under the auspices of temporary committees of the local banks, which accepted and held the collateral offered to guarantee their redemption.

These small certificates, like the large ones, were secured by collateral deposited with the clearing-house committee, and were practically guaranteed by all the associated banks, in that these banks agreed to accept them at par for the sum named. The description of collateral in most cases was a general affirmation that "this certificate is secured by the deposit of approved securities." But sometimes there was more detail, as in Portland, Oregon, where it was asserted that the banks have deposited "notes, bills of exchange, and other negotiable instruments secured by wheat, grain, canned fish, lumber actually sold, and other marketable products, and bonds approved by the committee," etc.; or in the case of Charleston, South Carolina, where there were said to be deposited "securities of double the value of this certificate, or bonds of the United States or of the State of South Carolina, or of the city of Charleston, or of the city of Columbia, 10 per cent in excess thereof."

Many of the certificates were elaborately engraved and were shaped and colored so as to resemble ordinary bank or government

notes. In denomination they usually ranged from $1 to $20, but in some cases, as in Montgomery, Alabama, they were issued for convenient sums all the way from 25 cents to $50.

The compilation here presented, though very incomplete, records an issue of $23,831,813 of such devices in the course of the panic of 1907.

C. Identical with these certificates in character and function, though differing in form, were the clearing-house checks issued in a number of cities. Like the certificates, they were issued by the associations to member banks upon the deposit of approved securities. Like them, they were accepted for deposit in any of the banks, but were payable only through the clearing-house. They were also in currency denominations, and were often quite as elaborately engraved, so as to resemble currency. The one peculiarity which distinguished them from certificates was that instead of merely certifying indebtedness on the part of the clearing-house association, they took the form of checks drawn on particular banks, and signed by the manager of the clearing-house. In Chicago a bank desiring such checks deposited with the clearing-house a corresponding amount of the ordinary loan certificates of large denominations and received the checks in currency denominations in exchange. They were also issued in Cleveland, Milwaukee, Youngstown, South Bend, and some smaller cities. Our record includes $12,060,248 of such issues.

D. In spite of the provisions of the National Bank Act, that no national banking association shall issue "any other notes to circulate as money than such as are authorized by the provisions of this title," a large number of national banks issued what were practically circulating notes in the form of cashier's checks in convenient denominations. In spite also of the 10 per cent tax upon any notes issued by state banks, similar devices were issued freely and without hindrance by some of those institutions as well (e.g., in Superior, Wisconsin). These checks usually purported to be "payable to bearer," but they were "payable only through the clearing-house," or "in exchange," or, as the phrase sometimes went, "in clearing-house funds." While in the southeastern states it was common for the banks in the small towns to issue conjointly what they called "clearing-house certificates," in small towns of the Middle West the "cashier's checks" of the individual banks were much more common. Sometimes these cashier's checks, like clearing-house certificates and clearing-house checks, were secured by the deposit of approved collateral with a committee of the clearing-house.

E. Another variety of currency issued during the panic were the New York drafts in denominations of $1 and upward, issued by the banks of Birmingham, Alabama, and which were used for pay-rolls and general circulation in that locality. They were really cashier's checks drawn on New York, but were drawn against actual balances held by particular New York correspondents. They were payable through the New York clearing-house, and were not otherwise secured, yet they appear to have circulated in and about Birmingham to the extent of millions of dollars without difficulty.

F. In a few instances the currency issued by the banks took the form of negotiable certificates of deposit in convenient denominations. Sometimes these certificates asserted that a particular person or company made the deposit, as in the case of the Bank of Winston-Salem, North Carolina. Sometimes the assertion was altogether general, as in the example from Berkeley, California. In some cases they bore interest, and were payable after the expiration of a certain period; in others they were immediately acceptable by the issuing bank through the clearing-house, and in such cases they bore no interest.

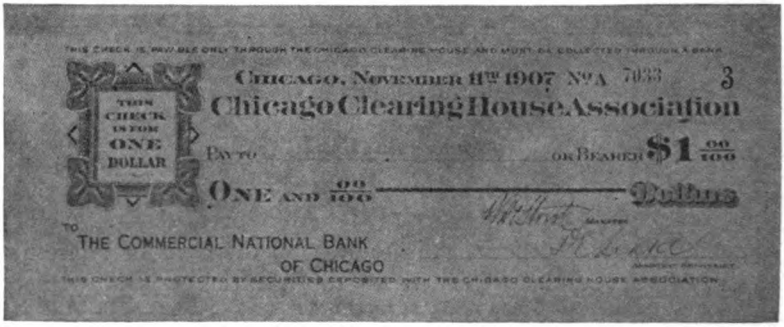
G. Last of all among the emergency devices were the pay checks payable to bearer drawn by bank customers upon their banks in currency denominations and used in all parts of the country in payment of wages and in settlement of other commercial obligations. These checks were generally "payable only through the clearing-house," but they differed from those which have as yet been considered, in that they were not a liability of the clearing-house association or of the bank on which they were drawn, but of the firm or corporation for whose benefit they were issued.

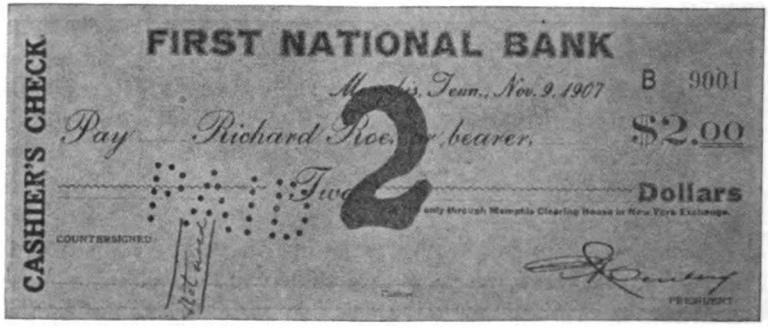
The pay-check system reached its largest development in Pittsburgh, where during the panic some $47,000,000 were issued, much of which was in denominations of $1 and $2. Their issue involved much more labor to the clearing-house, to the banks, and to the corporations using them than the issue of clearing-house checks would have caused, for most of them were rushed back to the bank within a week or ten days, and new checks had to be issued in their stead.

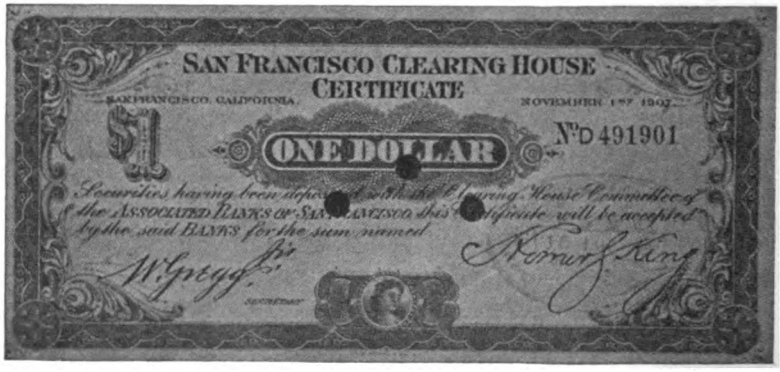
Pay checks were also issued by railroads, mining companies, manufacturers, and storekeepers in a large number of cities. Shops and stores and places of amusement in the neighborhood of their issue generally accepted them, and it is indeed surprising, considering their variety, their liability to counterfeit, and their general lack of

security, how little real difficulty was experienced in getting them to circulate in lieu of cash.

SAMPLES OF CLEARING-HOUSE CURRENCY


THIS CHECK IS PAYABLE ONLY THROUGH THE CHICAGO CLEARING HOUSE AND MUST BE COLLECTED THROUGH A BANK
THIS CHECK FOR ONE DOLLAR
CHICAGO, NOVEMBER 11TH 1907 No A 7033 3
Chicago Clearing House Association
PAY TO OR BEARER $1 00/100
ONE AND 00/100 Dollars
TO THE COMMERCIAL NATIONAL BANK OF CHICAGO
THIS CHECK IS PROTECTED BY SECURITIES DEPOSITED WITH THE CHICAGO CLEARING HOUSE ASSOCIATION




SAN FRANCISCO CLEARING HOUSE CERTIFICATE
SAN FRANCISCO, CALIFORNIA
NOVEMBER 1ST 1907
$1
ONE DOLLAR
No D 491901
Securities having been deposited with the Clearing House Committee of the ASSOCIATED BANKS OF SAN FRANCISCO this certificate will be accepted by the said BANKS for the sum named
W. Gregg Jr.
Secretary
Thomas J. King
President

VI

THE REGULATION OF BANKING

Introduction

Banking was one of the first forms of business to be subjected to government regulation. Because of the almost universal demand for the accomodations which banking affords and because of the tremendous power that is inherent in the control of loanable funds, the business has long been regarded as quasi-public in its nature. Indeed, there are many who hold that all banking should actually be conducted by the government itself; that to permit private interests to control the supply of bank currency and credit is to foster one of the most vicious of monopolies. But while it has long been recognized that banking is a public-service calling, we have not yet completely abolished private banking; for in many states it is still possible for individuals to engage in a general banking business subject to no regulation whatever. The numerous disastrous failures of such institutions in recent years, however, have fortunately developed an agitation against them which promises to result in their complete elimination from our banking system. Many of the large investment banking institutions are also unchartered and largely unregulated; but since they are for the most part controlled by men of large financial experience, and since they deal chiefly with other large financial interests, these private institutions do not present the same problems as do those which are designed to serve the public by means of a general banking business. The problems that arise in connection with the private investment banks are related to the possible misuse of the great power they wield through the control of the resources of capital.

A second reason for government supervision of banking is that it is necessary for the control of the system as a whole in its relation to the entire economic structure of society. As has been indicated in the preceding chapter, individual banks cannot escape relations with other banks, their own prosperity and safety being fundamentally linked with that of the system as a whole; and as a consequence the banks themselves have been forced, in the absence of adequate government

regulation, to develop machinery for controlling themselves as a system. At certain points, however, and at certain times, as has been noted, these voluntary associations have proved inadequate to the requirements of the situation. The government has therefore been looked to for the direction and control of banking—in the interests of the banks themselves and through them of the entire economic system.

Governmental supervision of banks has assumed various forms. In addition to requiring banks to incorporate, and thereby to conform with certain general provisions with reference to organization, the government has laid down numerous regulations pertaining to the character and extent of loans and the amount and nature of the reserve that must be held against deposits. Both national and state governments have developed regulations along these lines, and in the main they have based them on principles that have been developed out of many years of actual banking experience.

The most important feature of government regulation of banking, however, has been in connection with the issue function. While deposits have gone largely unregulated, bank notes have from the very beginning of our banking history been subject to numerous regulations. This special attention to the issue function is due in part to the fact that it was long the primary form in which bank obligations were manifested, in part to the fact that bank notes pass from hand to hand without regard to the character of those who hold them and thereby form a part of the money supply of the country quite as much as do gold and silver or government paper, and in part to the fact that we must look to the notes to give flexibility to the currency system as a whole.

The regulation of note issues has taken many forms, and the discussions of the principles underlying bank currency have been as vigorous and prolonged as the controversy over bimetallism. There are two fundamental problems in connection with the regulation of bank notes: that of making them safe and that of making them elastic, that is, responsive to the varying requirements of trade. Until the Civil War we had no national system of banking, and as a whole our bank currency was in a chaotic condition, lacking safety, uniformity, and elasticity. Here and there sound banking principles were being developed: in numerous instances bank notes were reasonably secure; in some sections of the country there was developed more or less uniformity; and now and then a measure of

elasticity was found. But on the whole the situation could hardly have been worse.

The national banking system made a great step in advance when it eliminated all state bank issues and gave us a safe and uniform national currency based on the deposit of government bonds in the federal Treasury. But this system of bond-secured notes did not provide for an elastic medium of exchange; and since we depend upon bank notes to furnish us virtually all the elasticity we have in our monetary system (aside from deposit currency), one of our most serious banking problems has remained for solution until the present day. It is believed, however, that the federal reserve system has solved the problem of an elastic currency.

A. Governmental Supervision

96. INCORPORATION[1]

BY WILLIAM A. SCOTT

It is generally admitted nowadays that no one ought to be permitted to engage in the banking business without special authority from the state. The reason for this is the need, in the interests of safety, of the public regulation and supervision of this business. Experience has shown that this can best be secured by the requirement of incorporation through special charter or in accordance with general laws, such charters or laws prescribing the conditions under which the business must be carried on. Without incorporation it is difficult, if not impossible, to separate banking from other lines, and consequently to know precisely who are engaged in it and how it is being conducted. Under such conditions certain persons are sure to escape the regulations prescribed by law and designed for the safeguarding of the public.

As between incorporation by special charter or under general laws, practice in the past has varied widely, but general banking laws are fast becoming the rule the world over. They prevent favoritism and secure uniformity. Only in the cases of highly specialized institutions of peculiar character, like the great central banks of Europe, is the special-charter method of incorporation likely to survive. The differentiation of the banking from the general incorporation laws of a state, that is, those applicable to other kinds of industrial

[1] Adapted from *Money and Banking*, pp. 131–32. (Henry Holt & Co., 1910.)

corporations, is also desirable on account of the peculiarities and public importance of this business. Such differentiation is rapidly becoming the rule in this country.

The need of incorporation applies to savings banks and trust companies quite as much as to commercial banks. Incorporation may be either under state or national law.

97. ADOPTION OF THE SYSTEM OF FREE BANKING[1]

BY HORACE WHITE

The system of free banking, or incorporation under the provisions of a general law, had its origin in the State of New York in 1838, although the State of Michigan had something resembling it a year earlier. Prior to that time bank charters in New York were a part of the spoils system of politics. Accustomed as we are to the spoils system of today, it nevertheless sounds oddly to read that bank charters were granted by Whig and Democratic legislatures only to their own partisans. Not only was this the common practice, but the shares in banks, or the rights to subscribe to them, were parceled out by political "bosses" in the several counties. Of course, corruption flourished in such soil. The people became exasperated by the indecencies witnessed at Albany. A reaction in favor of equal rights was the natural consequence, and out of this came the Free-Banking Law of 1838. Under this law the Comptroller was authorized to issue circulating notes to any association organizing itself as a bank and depositing stocks of the United States, or any State, or bonds secured by mortgage on real estate of a certain specified grade. The system had a bad start. Within five years after the law was passed twenty-nine banks that had organized under it failed, and the deposited securities realized only seventy-four cents on the dollar of the outstanding notes. This led to changes in the law by which all State bonds were ruled out except those of New York, and the mortgage securities were keyed up to a high pitch, but still not high enough.

The free-banking system made little headway in other eastern states, but it was quite generally adopted in the West during the decade just preceding the Civil War. While the early experience under free banking was generally disastrous, the fault lay, not in the general incorporation law, but in the inadequate regulation of the conditions under which banks thus organized were operated.[2]

[1] Adapted from "National and State Banks," *Sound Currency* (1894–95), II, 7–8.

[2] For other features of the free-banking system, see selection No. 121.—EDITOR.

98. THE KIRBY PRIVATE BANK FAILURE[1]

The Kirby Savings Bank, at 5019 South Ashland Ave., was closed when its proprietor, Dr. William P. Kirby, was adjudged insane by the county court. The assets discovered amounted to $856, of which $206 is cash; liabilities totaled $150,000. Possession of the defunct bank was effected by the receiver only with the assistance of the police, a woman reported to be the owner of the building endeavoring to prevent its seizure by means of a double-barreled shotgun. The cashier of that bank, who is a relative of Dr. Kirby, is but seventeen years old. He was arrested on a charge of passing a worthless check for $1,000, as agent for Dr. Kirby.

The Kirby Savings Bank was a private institution. It was conducted by a physician, who may or may not have had some knowledge of banking methods. Regardless of his fitness or unfitness to run a bank, he was free to put up a sign and invite deposits, no supervision or inspection of any kind being applied to the concern by the public authorities.

99. THE POSITION OF PRIVATE BANK DEPOSITORS[2]

A private banker never having become incorporated or subjected to supervision or control of either the national, state, or municipal government occupies exactly the same position in the eyes of the law as does a private citizen. The assets and liabilities of his business are a part of his personal estate and are included with those of his private ventures. Consequently when he dies the debts of not only his banking business, but of all of his private enterprises as well, are liens against his estate, which, like that of any other individual, must go through the probate court for settlement. The depositors of the bank share pro rata with the other creditors of the estate, for it has been held by the courts that the relation existing between a bank and a depositor is simply that of debtor and creditor, which does not entitle the latter to a preference in the distribution of the assets.

While the banking business conducted by a private individual may be perfectly solvent, the liabilities of his other private ventures may be of such magnitude as to render his estate as a whole insolvent. In other words, the depositors in his bank are obliged to stand the losses suffered by him in businesses absolutely foreign to that of banking. Only the other day we read of a saloonkeeper who died while

[1] Quoted from the *Chicago Banker*, November 9, 1912, p. 15.

[2] From an editorial in the *Chicago Banker*, December 21, 1912, pp. 16–17.

running a private bank as a side line; he also conducted a barber shop and a steamship agency. If any of these prove to be a failure, it is more than probable that the depositors will be very much disappointed when the estate is wound up. The same situation would prevail should the insolvent decide to avail himself of the emergency defense of insanity.

One does not have much sympathy for educated people so careless as to place their funds in unstable banking institutions; he cannot, however, help but feel for the ignorant foreigners who have come to this "land of promise" with the hope and expectation of accumulating a little something as a provision for the proverbial "rainy day." To them the word "bank" has a certain trust-inspiring significance, creating a feeling of the utmost faith and confidence. They do not know that there is any distinction between state, national, or private banks; they place all banks in one class—as a place where they can deposit their savings and withdraw them any time they so desire. They do not know anything about the probate court nor of other creditors. Is it any wonder, then, that they sometimes resort to attempted acts of violence when the savings gleaned as a result of years of toil are denied them?

The argument has been advanced on behalf of the private bankers opposing supervision in Illinois that because conditions are "rotten" in Chicago it does not necessarily follow that they are in the rest of the state—all of which will be conceded; but why should a private banker on a perfectly solvent basis and who is conducting his business honestly oppose an opportunity to show to his clients the exact status of his bank and the manner in which the money of its depositors is being used, thereby taking them into his confidence? The answer is that he doesn't. It is the crafty, hard-hearted, dishonest man who is willing to allow a lot of simple, uneducated people to contribute to his support with money earned by the sweat of their brows, while he in return gives them nothing but the "honor and prestige" of being depositors of his "bank." There is a vast difference, too, between "personal" and bank taxes.

100. THE NATURE OF GOVERNMENT SUPERVISION OF NATIONAL BANKS

"There shall be established in the Treasury Department a separate Bureau, which shall be charged with the execution of all laws passed by Congress relating to the issue and regulation of national currency secured

by United States bonds and, under the general supervision of the Federal Reserve Board, of all Federal Reserve notes, the chief officer of which Bureau shall be called the Comptroller of the Currency and shall perform his duties under the general directions of the Secretary of the Treasury." (National Bank Act of June 3, 1864, as amended by the Federal Reserve Act of December 23, 1913.)

"The Comptroller of the Currency, with the approval of the Secretary of the Treasury, shall appoint examiners who shall examine every member bank at least twice each calendar year and oftener if considered necessary. The examiner making the examination of any national bank, or of any other member bank, shall have power to make a thorough examination of all the affairs of the bank and in doing so he shall have power to administer oaths and to examine any of the officers and agents thereof under oath." (Federal Reserve Act, December 23, 1913.)

"It is the duty of the Comptroller to make an annual report to Congress, giving a summary of the condition of every national bank together with such special information as may be regarded of importance, whether in connection with national or state banks." (National Bank Act of June 3, 1864.)

"Every association shall make to the Comptroller of the Currency not less than five reports during each and every year, ... which reports shall exhibit, in detail and under appropriate heads, the resources and liabilities of the association at the close of business on any past day to be by him specified, and shall transmit such reports to the Comptroller within five days after the receipt of a request or requisition therefor from him. And the Comptroller shall have power to call for special reports from any particular association whenever in his judgment the same shall be necessary. Any association failing to make and transmit any such report shall be subject to a penalty of one hundred dollars for each day after five days that such bank shall delay to make and transmit any report." (National Bank Act, as amended March 3, 1869.)

"A Federal Reserve Board is hereby created which shall consist of seven members, including the Secretary of the Treasury and the Comptroller of the Currency, who shall be members ex officio, and five members appointed by the President of the United States by and with the advice and consent of the Senate." (Federal Reserve Act, December 23, 1913.)

The Federal Reserve Board has very broad powers, the chief of which are as follows:

a) To examine at its discretion the accounts, books, and affairs of each Federal reserve bank and of each member bank and to require such statements and reports as it may deem necessary. The said board shall publish once each week a statement showing the condition of each Federal reserve bank and a consolidated statement for all Federal reserve banks.

b) To permit, or, on the affirmative vote of at least five members of the Reserve Board, to require Federal reserve banks to rediscount the discounted paper of other Federal reserve banks at rates of interest to be determined by the Federal Reserve Board.

c) To suspend for a certain limited period any reserve requirements specified in this Act: *Provided*, That it shall establish a graduated tax upon the amounts by which the reserve requirements of the Act may be permitted to fall below the level specified.

d) To regulate through the Bureau under the charge of the Comptroller of the Currency the issue and retirement of Federal reserve notes.

e) To exercise general supervision over said Federal reserve banks. (Adapted from Federal Reserve Act, December 23, 1913.)[1]

101. THE MENACE IN GOVERNMENT CONTROL OF BANKING[2]

BY ELMER H. YOUNGMAN

The banking bill introduced in the Senate on June 26, 1913, is in my judgment one of the most dangerous and unsound measures ever introduced in the American Congress.

It virtually proposes to concentrate fifteen or twenty billions of banking credit under the control of a Federal Reserve Board, thus making possible what is now impossible under our system of numerous small banks with their system of ownership and management widely scattered, namely, the complete domination of credit by political bosses or by the financial powers to whom such bosses are subservient.

What a rich prize that would be as a bone of contention between rival political bosses and rival financial interests—the power to control credit and fix the rate of discount in every corner of the country. Outside the Russian Empire, where the Imperial Bank is a department of the State Treasury, no such politico-financial despotism exists.

This country does not need and will not tolerate a central bank (even if called a National Reserve Association) dominated by big bankers and those whom they control.

Nor does it need nor will it tolerate a political bank (even if called a Federal Reserve Board) controlled by the ruling political party.

The founders of this Government sought to avoid placing the purse and the sword in the same hands. The Secretary of the Treasury and the Comptroller of the Treasury make their reports to the Speaker of the House of Representatives, not to the President. But

[1] For full treatment of Federal Reserve System see chapter vii.

[2] Adapted from an editorial in the *Bankers' Magazine*, (New York, LXXXVII, 1915), 138–40.

here is a proposal to place in the hands of the President the power to give or to withhold credit, which has been aptly defined as the life-blood of commerce.

Such a power is too great to be placed in the hands of any man, and its exercise by him, even through his appointees, might become a source of grave danger.

Neither should this power be entrusted to a central bank (or National Reserve Association, so-called) nor to any other board of any kind whatsoever and howsoever composed; for no board—whoever its members may be—can sit at Washington or any other place and determine justly or accurately the amount of credit, the kind of credit, or the rate that should be paid for such credit.

Nor can these matters possibly be determined by Congress, nor by any department of the Government.

The only one who has sure knowledge of the needs of currency and credit is the man or the community that wants it.

The only sure means of testing the demand for currency and credit is the bank, which has its finger on the business pulse of individuals and the community. Banks are the scales that weigh the credit of communities and individuals, and are therefore the only instruments that can properly gauge and supply the demand for credit and currency.

When I take my note to a bank, and lay it down, I buy credit from the bank, just as when I go to the fish-dealer and lay down my money I buy fish. For the bank to dictate to me (and whether this is done by the Government, a board, or any other agency whatever, it comes to the same thing) what I should get in exchange for my note—that is, the kind of credit or money I should have, whether bank notes, coin, paper certificates, or checks—would be just as impertinent as for the fish-dealer to try to give me codfish when I asked for mackerel.

Whether I shall obtain credit at all is a matter between me and my banker, because he is the only man in the community who has the machinery for testing my ability to pay.

What kind of credit (or currency) I shall swap my own credit for, that is my affair purely.

All that the Government ought to do is to see that the notes are properly engraved so as to render counterfeiting difficult, and to see that the banks provide the coin and the machinery for promptly paying their notes.

The power to determine the amount and kind and rate of credit is one which no community should yield up to outside domination. President Wilson's proposal to set credit free is really a proposal to enslave it—to take it away from twenty-five thousand banks, with their many thousand shareholders, their millions of depositors, and their thousands of officers, each in touch with local conditions, vitally interested in local prosperity, and in close personal touch and sympathy with those who deal with the banks, and to place this power in the hands of a political board at Washington.

102. GOVERNMENT VERSUS PRIVATE CONTROL[1]

The opposition of the bankers to the Administration Currency Bill is the old cry against government regulation which the railways made ten years ago, when the Hepburn Rate Bill was passed.

The bill provides that general control of the entire national bank system shall be in the hands of seven men, three of the seven being the Secretary of the Treasury, the Comptroller of the Currency, and the Secretary of Agriculture. The other four members are to be chosen by the President of the United States, with the advice and consent of the Senate. It is mandatory upon the President that at least one of his four appointees shall be an experienced banker.

Here, then, is the whole trouble. The case is that of private control versus Government control. To ask that the bankers shall select the Federal Reserve Board is like asking that the railways shall choose the Interstate Commerce Commission. It is perhaps not unnatural that the bankers should be reluctant to let the control pass out of their hands; but is it quite fair for them to claim that what is proposed is to substitute "political control" for business control?

If the Federal Reserve Board, appointed by the President, with the advice and consent of the Senate, is "political," then the Interstate Commerce Commission is "political" and the Supreme Court is "political."

If the American people can trust the President to choose their Supreme Court for them, the bankers can certainly trust him to choose the Federal Reserve Board. A President who would prostitute the Federal Reserve Board to his own base political and partisan advantage would endeavor to so prostitute the Supreme Court and would deserve to be impeached.

[1] Adapted from an editorial in the *Outlook*, CIV (1913), 794–95.

No political, social, financial, or industrial system was ever devised without its most important element being confidence in human honor. If the American system ever reaches a point where the President cannot be trusted, in the full light of publicity and with the supervision of the United States Senate, to appoint our Federal judges, our interstate commerce commissioners, and our bank supervisors, it will be time to abandon that system and to adopt some form of benevolent despotism.

B. Regulation of National Bank Operations

103. CAPITAL, SURPLUS, AND SHAREHOLDERS' LIABILITY

No association shall be organized within a city the population of which exceeds fifty thousand persons with a capital of less than $200,000. In cities having less than fifty thousand and more than six thousand inhabitants the capital must be at least $100,000. In any place with a population of not more than six thousand the capital may be only $50,000. In any place the population of which does not exceed three thousand, banks may be organized with a capital of only $25,000. (Adapted from National Bank Act as amended March 14, 1900.)

"Each association shall, before the declaration of a [semiannual] dividend carry one-tenth part of its net profits of the preceding half-year to its surplus fund until the same shall amount to twenty per centum of its capital stock." (National Bank Act, June 3, 1864.)

"The stockholders of every national banking association shall be held individually responsible for all contracts, debts, and engagements of such association each to the amount of his stock therein, at the par value thereof in addition to the amount invested in such stock."

"No Federal Reserve Bank shall commence business with a capital stock of less than $4,000,000. The stockholders [the member banks] shall be entitled to receive an annual dividend of six per centum on the paid-in capital stock, which dividend shall be cumulative. After the aforesaid dividend claims have been fully met, all the net earnings shall be paid to the United States as a franchise tax, except that one-half of such net earnings shall be paid into a surplus fund until it shall amount to forty per centum of the paid-in capital stock of such bank." (Federal Reserve Act, December 23, 1913.)

104. RESERVE REQUIREMENTS

For the purpose of the regulation of reserves the national banks are divided into the following classes: (1) Banks in Central Reserve Cities—New York, Chicago, and St. Louis; (2) Banks in Reserve

Cities—about fifty of the larger cities of the country; (3) Country Banks—that is, in the remaining cities and towns. Each class has separate reserve requirements as follows:

1. "A bank in a central reserve city shall hold and maintain a reserve equal to eighteen per centum of the aggregate amount of its demand deposits, that is, deposits payable on less than 30 days' notice, and five per centum of its time deposits, in its vaults 6/18 thereof, in the Federal reserve bank 7/18, the balance of said reserve shall be held in its own vaults or in the Federal reserve bank, at its option."

2. "A bank in a reserve city shall hold and maintain reserves equal to fifteen per centum of the aggregate amount of its demand deposits and five per centum of its time deposits." Five-fifteenths of the reserve must be in each bank's own vaults,[1] 6/15 in the vaults of the Federal reserve bank. The other 4/15 may be held in either place or in both.

3. "A bank not in a reserve or central reserve city shall hold and maintain reserves equal to twelve per centum of the aggregate amount of its demand deposits, and five per centum of its time deposits." Four-twelfths of the reserve must be in each bank's own vaults, 5/12 in the vault of the Federal reserve bank. The other 3/12 may be held in either place or in both.

The former reserve requirements for national banks were: (*a*) for banks in central reserve cities 25 per cent; (*b*) for banks in reserve cities 25 per cent, of which 1/2 might be deposited in central reserve city national banks; (*c*) for country banks 15 per cent, of which 3/5 might be deposited in reserve city and central reserve city national banks.

"In estimating the reserves required by the Federal Reserve Act, the net balance of amounts due to and from other banks shall be taken as the basis for computation. To this amount should be added the individual demand deposits. Balances in reserve banks due to member banks shall be counted as reserves."

"Whenever any bank has less than the minimum reserve required by law, it shall not increase its liabilities by making any new loans or discounts otherwise than by discounting or purchasing bills of exchange payable at sight, nor make any dividend until the required reserve has been restored. If in thirty days the bank does not make good its reserve in lawful money the Comptroller may, with the concurrence of the Secretary of the Treasury, appoint a receiver to wind up the business of the association."

The Federal Reserve Board is empowered "to suspend for a period not exceeding thirty days, and from time to time to renew such suspension for periods not exceeding fifteen days, any reserve requirements specified in this Act: *Provided*, That it shall establish a graduated tax upon the amount by which the reserve requirements of this Act may be permitted to fall below the level specified."

[1] This requirement was omitted by amendment of September 7, 1916. Henceforth all may be held in reserve bank.—EDITOR.

105. REASONS FOR LEGAL REGULATION OF RESERVES[1]

By CHARLES A. CONANT

The requirement that a bank shall keep in standard money a certain fixed proportion of its note issues is one of the regulations of banking which has been sanctioned by practical experience. It is a requirement capable of justification upon grounds of public policy. The natural tendency of banking, even where there is no intentional violation of sound principles, is toward the reduction of cash reserves to the lowest limit. This is a natural result of the law of marginal utility and of unrestricted competition. The law of marginal utility leads the community as well as the banker to employ paper as largely as possible as a medium of exchange in preference to coin, because of the economy in the amount of capital required and in transportation and handling. The practical determination of how much coin shall be retained within the country as a basis of security for notes lies with the banker, where there is no restriction upon denominations of notes, because the public will continuously accept notes and rely upon the banker to keep a sufficient metallic reserve. The necessity for regulation is less obvious where the entire volume of notes is issued by a single great bank than in the case of competing banks, because such a bank is not, as a note issuer at least, subject to competition, and its accounts attract more attention.

Where competition enters into the problem between banks otherwise upon equal footing, the bank which runs closest to the danger line in respect to the size of its metallic reserve, without actually impairing public confidence, will make the largest profits. The tendency, therefore, among competing banks will be to reduce their metallic reserves within narrower and narrower limits, until they may fall below the limits of safety. This is the natural result of the effort to render services to patrons for the lowest charges and earn profits for the bank by keeping at the minimum the amount of idle capital invested in reserves. The rectitude of any one banker, or even a combination of bankers, will not guard against the improper reduction of reserves under the stress of competition, unless such a combination is strong enough to discredit the more reckless bankers among depositors and other patrons. The chances will favor the less prudently managed banks, because of their facilities for reducing charges for their services and attracting patrons until the bankers

[1] Adapted from *Principles of Money and Banking*, II, 71–73. (Copyright by Harper & Brothers, 1905.)

of greater prudence are driven from business by the fall of their rate of profit below the normal return upon capital.

This process is almost certain to go on in a state of economic freedom, even though there is no conscious abandonment of sound banking principles. The more daring banks, especially if they are younger and smaller than the conservative ones, will keep only the reserve required for meeting ordinary demands, and will rely on the older and more prudent banks to aid them with their stronger reserves in case of unexpected demands. This will be still more the case if the larger banks are in the commercial centers and constitute the natural support of the smaller banks. Where no regulation existed, however, and pre-eminently where no one bank was large enough to feel the responsibility of sustaining the credit of the entire banking system, the tendency would be toward reducing the reserves of even the central banks to the minimum of safety under ordinary conditions. Reserves in such banks would be larger than in country banks, but not adequate to meet unusual demands. This reduction of the reserve to the danger line would, moreover, while there was no marked adverse movement of the precious metals, pass unobserved except by a few students, whose warnings would attract little attention until a serious emergency arose.

The danger of such gradual impairment of the reserves would be much greater when there was no minimum limit prescribed by law or custom than if such limit existed. The awakening to the fact that metallic reserves were inadequate to sustain business and credit would finally come at a time when country banks had reduced their reserves to the form of deposits in commercial centers and the banks in the commercial centers had reduced their reserves to a point which permitted the extension of little aid to their country correspondents. At such a moment the failure of a few country banks might carry with it the collapse of the whole banking structure, as one institution after another discovered that it was leaning upon a broken reed in relying upon other banks, and the banking and business community suddenly had revealed to them in a flash the slender foundation upon which credit rested.

106. RESTRICTIONS ON LOANS

a) It shall be lawful for any such [banking] association to purchase, hold, and convey real estate as follows:

First. Such as shall be necessary for its immediate accommodation in the transaction of its business.

Second. Such as shall be mortgaged to it in good faith by way of security for debts previously contracted.

Third. Such as shall be conveyed to it in satisfaction of debts previously contracted in the course of its dealings.

Fourth. Such as it shall purchase at sales under judgments, decrees, or mortgages held by such association, or shall purchase to secure debts due to said association. (National Bank Act, June 3, 1864.)

Such associations shall not hold the possession of any real estate under mortgage, or hold the title and possession of any real estate purchased to secure any debts due to it for a longer period than five years. (National Bank Act, June 3, 1864.)

"Any national banking association not situated in a central reserve city may make loans secured by improved and unencumbered farm land, situated within its Federal reserve district, but no such loan shall be made for a longer time than five years, nor for an amount exceeding fifty per centum of the actual value of the property offered as security. Any such association may make such loans in an aggregate sum equal to twenty-five per centum of its capital and surplus or to one-third of its time deposits, and such banks may continue hereafter as heretofore to receive time deposits and to pay interest on the same." (Federal Reserve Act, December 23, 1913.)

The Federal Reserve Board shall have power from time to time to add to the list of cities in which national banks shall not be permitted to make loans secured upon real estate in the manner described in this section. (Federal Reserve Act, December 23, 1913.)

b) To one person or corporation: The total liabilities to any association, of any person, or of any company, corporation, or firm for money borrowed, including, in the liabilities of a company or firm, the liabilities of the several members thereof, shall at no time exceed one-tenth part of the amount of the capital stock of such association actually paid in and unimpaired and one-tenth part of the unimpaired surplus fund, provided that the total of such liabilities shall in no event exceed thirty per centum of the capital stock of the association. But the discount of bills of exchange drawn in good faith against actually existing values, and the discount of commercial or business paper actually owned by the person negotiating the same, shall not be considered as money borrowed. (National Bank Act, as amended June 22, 1906.)

c) On security of own stock: No association shall make any loan or discount on the security of the shares of its own capital stock, nor be the purchaser or holder of any such shares, unless such security or purchase shall be necessary to prevent loss upon a debt previously contracted in good faith; and stock so purchased or acquired shall, within six months from the time of its purchase, be sold or disposed of at public or private sale; or, in default thereof, a receiver may be appointed to close up the business. (National Bank Act, June 3, 1864.)

107. OBJECTIONS TO LOANS ON REAL ESTATE[1]

The prohibition against loans on real estate is a feature of the National Banking Law which has been much criticized in some quarters; and as evidence that this restriction upon the powers of the national banks is unreasonable and unnecessary, it is urged that real estate is the best kind of security; that savings banks, trust companies, and insurance companies are authorized to make such loans; and why, therefore, should not the national banks be permitted to do the same? But, by the great majority of bankers, the restriction is deemed wise and salutary. The objection to real estate security is not to its sufficiency, but to the kind. As the obligations of the banks are largely payable on demand, it is necessary that the securities it holds should be readily convertible into money; and while a mortgage upon real estate may be good security, it cannot be made immediately available, in case of an emergency. Personal securities of the kind usually taken by banks can be quickly assigned and promptly realized upon; but the transfer of any interest in real estate is always attended with more or less delay. It has not infrequently been the case that banks have been compelled to suspend when their assets were more than sufficient to pay their debts simply because a large portion of the assets were real estate securities, upon which it was impossible to realize at the proper time. In the case of insurance companies, trust companies, savings banks, and similar corporations there is not the same necessity for having the assets in a convertible form, but it is rather desirable that a large portion of the investments shall be of a more or less permanent character; and, therefore, real estate loans are well adapted to their purpose.

108. ARGUMENT FOR LOANS ON REAL ESTATE[2]

BY O. M. W. SPRAGUE

For banks all of whose obligations are payable upon demand the real estate loan, quite regardless of its safety, is wisely considered unsuitable. Such loans are commonly wanted by borrowers for a considerable period of time, and therefore they cannot readily be

[1] Adapted from *Digest of National Banking Laws*, p. 28. (A. S. Pratt & Sons, 1908).

[2] Adapted from "Proposals for Strengthening the National Banking System," *Quarterly Journal of Economics*, XXIV (1909–10), 204–5.

reduced in amount even by an individual bank. In other words, they are not liquid. But the importance of this quality in all its assets disappears when a bank begins to acquire time or savings deposits as well as those payable on demand.

Some of the advantages which the banks would derive if they were able to lend on real estate are so evident that they require little more than mere mention. It would give them more of the most profitable kind of business, that which has its origin in the neighborhood of the bank. The immediate return is generally greater than can be secured from the employment of funds in the money centers or in the purchase of paper from note brokers. Moreover, in fostering the growth of wealth and population in its locality a bank is laying a solid foundation for the future expansion of its own business. Finally, the ability to lend on real estate will often enable a bank to secure valuable customers who would otherwise go elsewhere. It has been the unpleasant experience of many a national banker to be obliged to refuse a loan to a would-be borrower who has nothing but real estate to offer as security and see him enter a neighboring state bank or trust company where there was no legal obstacle to the transaction. Relations once established are pretty certain to continue even after the borrower has security which falls within the provisions of the national law.

In order that such loans may be made with safety, however, it is necessary to establish time savings departments, segregating the deposits.

109. CAUSES OF NATIONAL BANK FAILURES[1]

Sixty per cent of the failures of national banks were caused by violations of the national banking laws; 23 per cent were caused by injudicious banking; 13 per cent by shrinkage in values and general stringency in the money market, while 4 per cent resulted from the failure of large debtors and other minor causes.

Criminal violations of law caused about 37 per cent of the failures, 23 per cent being caused by fraudulent management, 7 per cent by defalcations, and 7 per cent were wrecked by the cashier or other employee. Excessive loans caused 20 per cent of the failures and heavy investments in real estate or mortgages about 3 per cent.

[1] Adapted from *Report of Comptroller of the Currency*, 1911, p. 27.

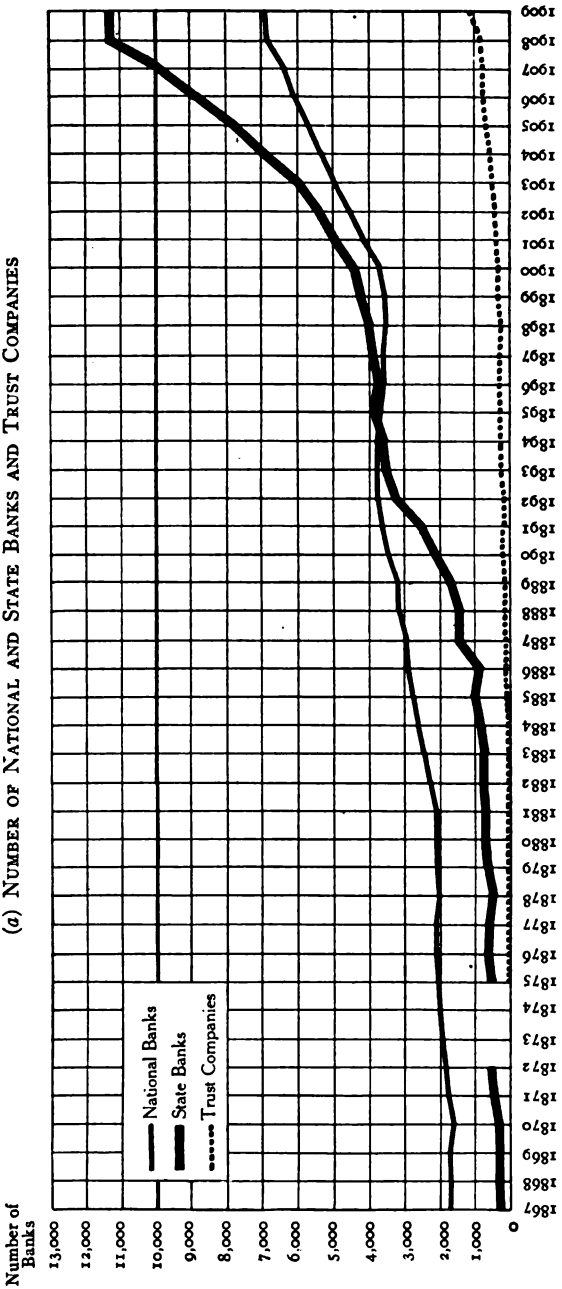
The following table shows the number and percentage of insolvent national banks classified according to causes of failure from 1865 to October 31, 1911:

Causes of Failure	Number	Per Cent
Criminal violations of law:		
Defalcations	36	6.96
Fraudulent management	117	22.63
Wrecked by cashier or other employee	35	6.77
Other violations of law:		
Excessive loans	107	20.70
Investments in real estate and mortgages	14	2.71
Other causes:		
Injudicious banking	119	23.01
Shrinkage in values	50	9.67
Depreciation of securities	17	3.29
Failure of debtors	12	2.32
Closed by or in anticipation of run	4	.78
Receiver appointed after voluntary liquidation	3	.58
Cause not indicated	3	.58
Total	517	100.00

C. Regulation of State Banking

110. GROWTH AND IMPORTANCE OF STATE BANKS AND TRUST COMPANIES[1]

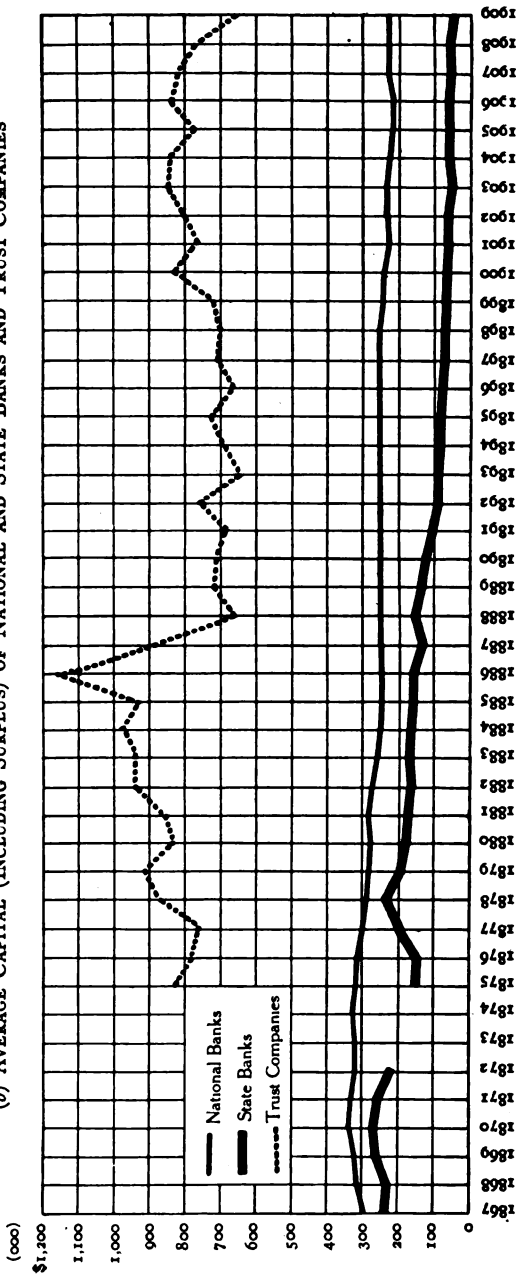
(a) Number of National and State Banks and Trust Companies



[1] Charts taken from reports of National Monetary Commission, 1910.

110.—*Continued*

(*b*) AVERAGE CAPITAL (INCLUDING SURPLUS) OF NATIONAL AND STATE BANKS AND TRUST COMPANIES



III. SUMMARY OF LEGISLATION AFFECTING STATE BANKS[1]

BY JOHN FRANKLIN EBERSOLE

The prevailing requirements for state banks may be sketched in their main outlines. The minimum capital required for state banks varies from nothing to $50,000 in the different states. In the South and West the requirement is less than the $25,000 required for national banks. Some twenty states require but $10,000 or less. In twenty-nine of the thirty-seven states and territories which require a minimum under a general law, the amount is graded according to population. In most of these states $25,000 is the maximum, though several require $100,000. As compared with the national-bank minimum of $25,000 for towns of less than 3,000 population, three states have higher, seven states have the same, and seventeen have lower requirements. As compared with the national-bank requirement of $50,000 for places of 3,000 to 25,000 population, over three-fourths of the states which prescribe a fixed capital have lower requirements. None of the states require more; in several they require much less. For cities of 25,000 to 150,000 three-fourths of all the states have lower requirements than the national-bank requirement of $100,000.

This difference in the amount of capital required is one of the noteworthy contrasts between national and state legislation, and this difference exists not in legislation only. Sixty-two per cent of the 11,319 state banks in operation on April 28, 1909, had less than $25,000, and 27 per cent had capital ranging between $10,000 and $15,000. A few states show some lack of banking ideals in permitting an authorized capital larger than the paid-in requirements, undue prolongation of the paying in of capital, and the payment of subscriptions to capital in things other than "cash" or "money of the United States."

The national-bank act requires one-tenth of net earnings to be set aside annually toward a surplus fund until it amounts to one-fifth of the capital. Nineteen states have this rule; seven states have more stringent provisions; Virginia has a lower requirement, and seventeen states do not require, by general law, such a surplus accumulation. In addition to this surplus fund added to capital, most states follow the national-bank act in providing for the double liability of shareholders. In nineteen states the shareholders are responsible

[1] Adapted from "The Relation of State to National Banks," *Proceedings of the American Academy of Political and Social Science*, I (1911), 286–90.

"equally and ratably and not for another." In fourteen states the shareholders are liable "jointly and for each other." Sixteen other states are more lenient, imposing no statutory liability whatever.

With reference to the regulation of loans the state banking laws are in general more liberal than the federal law. The national-bank act limits the amount of any single liability due a national bank to one-tenth of its capital and surplus and to 30 per cent of its capital stock. With the exception of two states the state banking laws are far more liberal. Some twenty-two states allow from 15 per cent to 30 per cent of capital and surplus as the limit to each individual liability to a bank, and ten states have no limitations whatever.

The national-bank act permits an excess if it consists of advances on bona fide bills of exchange and commercial paper actually owned by the negotiator. The state laws, in addition to these, make exceptions in favor of loans on real estate mortgages (six states); loans on bills of lading and warehouse receipts (eight states); loans on collateral security (fifteen states), and loans approved by a vote of the directors (four states). This greater liberality may be accounted for by the smaller size of most of the state banks and the difficulty of enforcing restrictions. Even in the national system enforcement is not easily accomplished, for as late as September, 1909, over one thousand banks (or 15 per cent of the total) voluntarily reported excessive loans. Several of the eastern states have recently set limitations as to the amount of any one loan irrespective of the individual's liability.

Another important contrast between national and state banks is the power conferred upon the latter and denied the former to loan upon real estate. A few states limit the amount to be put into real-estate loans. The prevailing practice is to limit these loans to 50 per cent of the capital or capital and surplus. A few place the limit at from 15 per cent to 40 per cent of the assets, and some at 20 per cent of the loans. State laws define the character of these loans as to the location of the property, the character of the lien, or the proportion which the value of the real estate must bear to the amount of the loan. Holdings of real estate are limited to a five-year duration following a foreclosure sale.

These real-estate loans are a larger proportion of the total loans in the smaller towns and cities. And "notwithstanding the disadvantages of real estate as a convertible asset, the power to loan on the security of real estate is a valuable one to many of the state

banks." On April 28, 1909, 20.6 per cent of the total loans and discounts of state banks were based upon security of this character. In so far as the deposits of state banks are time deposits, this form of lending cannot be troublesome, though it is not suitable for active commercial banks in large centers of population.

The third great difference between national and state banks is found in the reserve requirements. Here, also, the state banks and territorial laws are the more lenient. At present (1910) in ten states no reserve whatever is required for incorporated banks. In fourteen states a reserve is required only against demand deposits. The amount ranges from 10 per cent to 25 per cent, although 15 per cent is commonly required. In six other states a lower reserve is required against time deposits than against demand deposits. This ranges from 4 per cent to 15 per cent for time deposits as against 15 per cent to 25 per cent for demand deposits. In sharp contrast the national-bank act requires from 15 per cent to 25 per cent of all deposits. This example has been followed in but thirteen states.

Not only in regard to the amount of reserve, but also as to its form, do state and national laws differ. All states permit balances in other banks to be counted as a part of the reserve. The amount of redeposit so authorized varies from one-half to three-fourths.

A few states distinguish between the amount to be redeposited of the reserve against demand and time deposits. As high as eleven-fifteenths of the latter are so redeposited.

In seven states "the banks determine for themselves what part of their reserves shall be cash in bank and what part shall be in the form of bank balances." In four states bonds may be counted in the reserve. In the choice of depositaries the state banks are practically unrestricted. In but five states are distinctions made between the reserves required of ordinary banks and reserve agents.

112. THE FUNCTIONS OF TRUST COMPANIES[1]

BY RALPH W. DAVIS

The functions of a trust company may be divided into two classes: general and special. The general functions are: (1) the execution of corporate trusts, (2) the execution of individual trusts, (3) the care of securities and valuables, and (4) banking.

[1] Adapted from an unpublished article.

The company often acts as trustee under corporate mortgages and trust deeds, looking out for the interests of the bondholders. As fiscal agent the company dispenses coupons and makes interest payments on bond issues and dividends of stocks. It receives funds set aside as sinking funds, or when the bonds are subject to redemption draws a specified amount by lot, and pays the principal. As registrar the company authenticates certificates of stock in order to prevent overissues and to reduce the chance of loss or theft. As transfer agent it attends to the perfecting of transfers of ownership for stock and bond issues or parts of them. As manager of underwriting syndicates it issues a prospectus and markets the securities of corporations which are being launched, or, if established, are issuing new securities. In railroad and other reorganizations the company takes a prominent part, acting both as a depository for, and as a representative of, the committees which formulate and execute the plans. As assignee and receiver the company acts in the same capacity for corporations as for individuals and partnerships, assisting in winding up insolvent business and in conducting embarrassed ones.

The original function was the work of the present individual trust department. All other functions have been added. As executor appointed by will the company sees to the carrying out of the terms of the will. As administrator it performs similar duties. As trustee under a will it carries out the provisions of the will, investing or managing the estate or particular funds in accordance with the directions. In this case it may hold real or personal property. As trustee under deed a contract is entered into, and the title of the property is vested in the company. Marriage settlements are often made in this way.

The trust company often acts as guardian, curator, or committee of estates, and in some states of persons of minor age, insane, spendthrifts, drunkards, and others not legally fit to conduct their own affairs. As agent the company takes charge of property for its owner, but does not have the power to sell it. As assignee the company takes possession of the property assigned, for the purpose of carrying out the terms of the deed of assignment, in the interest of both the assignor and his creditors. As receiver appointed by court the company has much the same to do as in the case of assignee. It must preserve the property for the creditors. As custodian the company holds property the title of which is in dispute, delivering the same when the dispute is legally settled.

The company acts as representative for living or dead in practically every legal relation in which an individual can act. It must not only keep intact the estate of which it has charge, but must safeguard the interest of every beneficiary.

The special functions are life insurance, title insurance, and fidelity insurance. Life insurance was formerly a part of a trust company's business, but has now been delegated in large degree to special life insurance companies. Title insurance is often found to be one of the functions. The company insures the purchaser of property because of illegal titles and guarantees the sale to be legal. Fidelity insurance, which insures an individual or corporation against loss by reason of dishonesty and non-performance of obligations or contracts, is gradually passing into the hands of special companies.

113. THE BANKING FUNCTIONS OF TRUST COMPANIES[1]

By F. B. KIRKBRIDE and J. E. STERRETT

The banking functions of trust companies may include any or all of the following:

The receipt of money deposits payable on demand and subject to check, or payable at a fixed date, or according to special agreement. Interest is usually allowed on all deposits above a fixed minimum amount or on the total sum.

Money advances secured by the hypothecation of stocks, bonds, life insurance policies, bonds and mortgages, or other personal property.

Real estate loans, secured by bond and mortgage. It is customary to loan not over two-thirds of the value of improved property; when the property is unimproved, not more than half.

Discounting paper is engaged in principally by companies transacting a commercial banking business. The purchase of unsecured paper is permitted in some states where discounting is not allowed.

The purchase and sale of securities.

Trust companies sometimes guarantee issues of bonds, or at least set their stamp of approval upon them.

The issue or guarantee of letters of credit and the transaction of a foreign exchange business.

[1] Adapted from *The Modern Trust Company*, p. 6. (The Macmillan Co., 1913.)

The care of savings deposits. For this purpose a separate department is usually maintained.

114. CAUSES OF THE GROWTH OF TRUST COMPANIES[1]

BY CLAY HERRICK

Regarding the causes of the growth of trust companies, the easiest thing to say is also probably the truest—that they are found in the tendencies of our age and nation. The trust company marks, not a revolution, but an evolution in our methods of handling financial matters, and we cannot understand its development without taking into account the great changes which our civilization is undergoing. There is, to begin with, the accumulation of individual wealth—the increase in the number of persons and families having large interests to care for. A still more important influence has been the tremendous increase in corporate wealth, both in number of corporations and in the amounts under their control. Here are phenomena that are peculiar to the United States and peculiar to this age. Nothing like the huge corporations formed in recent years in the United States has ever been known before since history began. To care for these institutions some special agency was needed. The trust company proved equal to the emergency. Says one writer: "Without their [the trust companies'] agency some of the transactions in modern corporate business would be both cumbersome and difficult. For the success of schemes of reorganization of railroad interests and the financing of vast industrial consolidations their intervention has grown to be at least an invaluable convenience, if not altogether a necessity."

Coincident with this tendency to great consolidations, the growing recognition among all classes of people of the value of associated effort has had a marked influence in favor of trust companies. Here again the trust company finds itself in harmony with the times. It is an intermediary between great enterprises and the group of individuals who constitute its customers. It takes the amounts, large or small, contributed by the latter, in trust; and the result is a large amount which it can invest in any corporate undertaking to the mutual advantage of all concerned. Surplus funds, useless in small amounts, are

[1] Adapted from *Trust Companies, Their Organization, Growth and Management*, pp. 31–32. (Bankers' Publishing Co., 1909.)

gathered together and made to do service in enterprises that benefit the whole people.

115. THE REGULATION OF TRUST COMPANIES[1]

By JOHN FRANKLIN EBERSOLE

The trust companies present some different features from the state banks. While it is true that the laws concerning state banks and trust companies are tending to become assimilated, certain important differences remain.

The trust companies are distinctly authorized to accept trusts and to do a safe-deposit business in addition to general banking. The majority of the states which provide for a specified capital require a minimum of $100,000 or over. There is a tendency in recent legislation to lower this amount. "In every state except one the smallest permissible capital is as large for trust companies as for state banks, if not larger; in six states it is the same; in all the others it is larger."

Subscribed but unpaid capitals are permitted in fourteen states, but the majority require full payment. Of the latter over half require full payment as a condition for beginning business. The payment is required by all but nineteen states to be "in cash" or "lawful money." The accumulation of a surplus is not required in so many states for trust companies as for banks.

With respect to loans, trust companies are less restricted than state banks. Nine states which limit state banks do not limit trust companies.

The reserve requirements for trust companies are much less than for state banks. Six states and territories require no reserve whatever. Two states require reserves of trust companies but not of banks. In the remaining states, trust companies are favored by being allowed to count bonds as a part of the reserve, or to hold lower reserves against time deposits. Recent legislation shows a tendency to increase these reserves or to diminish the proportion of bonds held in them. This leniency has probably been due to the different character of the trust company deposits. They are largely inactive and contain but a small percentage of bank deposits which are subject to sudden or large withdrawals.

[1] Adapted from "The Relation of State to National Banks," *Proceedings of the American Academy of Political and Social Science*, I (1911), 291–92.

116. TRUST COMPANY FAILURES[1]

BY CLAY HERRICK

Statistics regarding failures and suspensions of trust companies are not obtainable prior to the year 1893. From 1893 to 1907 the percentage of failures (or the ratio of the number of companies failing to the number of companies in business) was about as follows for the different types of banking institutions:

National banks	½ of 1 per cent
State banks	$\frac{8}{100}$ of 1 per cent
Savings banks	$\frac{2}{100}$ of 1 per cent
Loan and trust companies	$\frac{1}{100}$ of 1 per cent

From these figures it appears that the proportionate number of trust company suspensions was less than that of any class of financial institutions except the National banks.

Regarding the losses involved in the failures, the showing of the trust companies is, on the face of the figures, not so good, the losses assigned to them exceeding those of the other institutions, except the private banks. The figures represent, however, not the ultimate losses, but the best estimates of the probable results obtainable at the time. An examination of the figures for the year 1907, which account for 62 per centum of the entire estimated liabilities for the fifteen years, shows that they give a greatly exaggerated idea of the actual losses involved. Of the 17 trust companies reported suspended in 1907, at this date (November, 1908) about one-half have reopened for business, while several others are being liquidated without loss to depositors.

Especial interest attaches to the record of trust companies during and since the panic of 1907, because it was the first severe strain that has been undergone by these institutions since their great development began. On the whole the record must be pronounced very satisfactory. Although subjected to a strain that was unprecedented, their record compares favorably with that of other classes of financial institutions. The failures which occurred were in no sense ascribable to any inherent weakness in the trust company as an institution, but are accounted for in some cases by the dishonesty of officials and by undue laxity of the state laws under which they operated, and in others by pressure of circumstances which could not be overcome

[1] Adapted from *Trust Companies, Their Organization, Growth and Management*, pp. 23–24. (Bankers' Publishing Co., 1909.)

by any kind of banking institution. The same causes brought about the downfall of other financial institutions, including National banks and State banks in states having the best laws for their regulation and control. The panic of 1907 did, however, emphasize the necessity of careful and intelligent state regulation and control of trust companies as well as of the other banking institutions.

D. The Regulation of Note Issues

(1) GENERAL PRINCIPLES

117. METHODS OF BANK NOTE REGULATION[1]

BY FRED M. TAYLOR

The chief problems offered to the student by the bank note circulation are these three: (1) How shall this kind of money be kept *at par* with standard money? (2) How shall the holders of such money be *secured against loss* should the issuing bank default on payment? (3) How shall this money be given that *elasticity* which will enable it to play well its part as that constituent in the system which is depended on to adjust the stock of money to the need for money? Parity, ultimate security, and elasticity, these are the three principal characteristics which wise regulation seeks to secure for the note circulation.

I. THE PARITY OF BANK NOTES

In general all methods of insuring parity may be described as devices whereby a guarantee is given to the note-holder that, in case he cannot use the bank note in the ordinary course of trade he can easily make some other disposition of it which will not involve loss. Under that condition everyone is willing to become a note-holder, and so is willing to accept the note at par.

The principal devices coming under this description are two: (1) making the note a valid tender in some important relation, and (2) providing for its easy, instant, and constant convertibility. It is doubtful whether the former could ever, by itself, maintain parity. Probably, however, it contributes greatly to the result when the conditions for securing convertibility are inadequate, as is commonly the case.

But while it is a valid tender in some important relation contributing to maintaining the parity of notes, the only sure method of

[1] Adapted from *Some Chapters on Money*, pp. 276–94. (Copyright by the author, 1906.)

securing this characteristic is to keep them easily and constantly convertible. The holder of such notes must be able at all times, and in practically all places, to exchange them, without material trouble or expense, for standard money. As a first step toward this end the issuing bank must, of course, redeem the notes over its own counter. But this is not enough. Maintaining this condition is sufficient to keep the notes at par in the immediate vicinity of the issuing bank; but it has often proved unable to hinder those notes from circulating at a discount in distant places. The ideal plan would involve a great number of local redemption agencies scattered over the country, with one or more central agencies for redeeming the notes taken in by the local agencies. In practice, however, it is probably sufficient to provide for redemption at one or more important banking centers. For the existence in the trade centers of an opportunity to get the notes redeemed makes the banks of those centers ready to receive them at par, while this fact, combined with the additional one that banks in lesser places have frequent occasion to send money to the centers, makes this latter class of banks quite ready to receive the notes at par. Thus the maintenance of *central* redemption secures what is, in effect, *local* redemption throughout the country.

In the preceding discussion of parity I have had in mind the case of notes issued by a bank *still solvent*. But the problem of keeping notes at par may also arise when the issuing bank has *gone into liquidation*. If we suppose that, in such a case, there is no doubt as to the ultimate security of the note, nevertheless that note may not be generally accepted at par, may pass at more or less discount, pending the completion of arrangement for making it good out of the assets of the bank.

This particular case of parity, which one might designate as "liquidation" parity, may be more or less adequately provided for in several ways. One device, which probably contributes, at least, to the desired result, is to provide that the notes of failed banks shall bear interest until paid. This makes them a banking investment, hence makes banks ready to accept them. Another and far more effective device is requiring all banks in the system to maintain a fund, known as a safety fund, from which the notes of any bank in liquidation shall be redeemed.

A third method of securing "liquidation" parity is immediate redemption by a guarantor of the notes. This is the system at present in vogue in the United States. The Federal Treasury agrees to redeem

out of its own funds the notes of any failed bank, recouping itself by the sale of bonds or other property belonging to the bank; and this redemption it undertakes *just as soon as the issuing bank shuts its doors*. Naturally, under this condition, the notes can never go below par.

II. THE SECURITY OF BANK NOTES

Considered from the standpoint of the methods employed to make the notes secure, systems may be grouped into four classes: (1) Pure Credit or Free Issues, (2) Regulated Credit Issues, (3) Secured Issues, and (4) Guaranteed Issues. The first two of these might be classed together as Asset Issues, in contrast with Secured or Guaranteed Issues. That is, no special property is set aside to secure them as in the Secured Issues, nor does any institution guarantee them, so that the note-holder must depend on the ordinary assets of the issuing bank to insure him against loss.

A. *Pure Credit Issues*.—The nature of Pure Credit Issues is suggested by the name. They rest on credit solely, the same sort of credit that supports any personal note. They are free, that is, unregulated, save as all contracts are regulated. The banker is allowed to borrow other people's money by issuing his circulating notes, just as he would borrow other people's money by giving an ordinary note payable in ninety days, or in two years, or at the end of any definite period. The whole transaction is looked on as being the business of nobody except the banker and the person who accepts the note and, thereby, becomes the creditor of the banker. If such person choose to trust the banker, that is his own affair, calling for no interference on the part of the state or of anyone else.

In a system like that just described security manifestly depends on the promptness and thoroughness with which the rights of the note-holder, under the ordinary law of contracts, are enforced. The note of the banker is payable on demand. If the banker does not keep the engagement, he can be forced into bankruptcy. Anxiety to avoid this result would seem to insure that bankers would be at least as certain as other debtors to keep their engagements, and that therefore the security of these notes might be left to the banker's self-interest and to the legal processes ordinarily used in enforcing contracts. Yet experience and theory alike have fairly established a contrary doctrine, have convinced almost all authorities that no proper guarantee of the security of circulating notes is furnished by the laws regulating ordinary promissory notes.

B. *Regulated Credit Issues.*—Under this head are included all those systems of note issue which, while undertaking to do *something* for the security of the notes, do *not* attempt to accomplish the object *directly*, as, for example, by requiring the pledging of bonds to cover them. Instead, these systems content themselves with defining in one way or another the circumstances and conditions of issue, with the intention of thereby *increasing the probability* that the notes will be secure. Schemes of this sort are very numerous, and some grouping of them is almost necessary. Perhaps as convenient a classification as any is one which makes five groups: viz., (*a*) those which try to gain security by a proper *placing* of the power of issue, (*b*) those which seek the end by *restricting the amount* of issue, (*c*) those which restrict the circulation of the notes, (*d*) those which dictate with respect to the assets kept by the bank, and (*e*) those which impose some degree of *government supervision.* Obviously, these different methods of regulation may be combined, one with another, as also with Secured Issue systems, or Guaranteed Issue systems.

The method of procedure which aims to furnish security by a proper placing of the right of issue gives us two cases: (1) restricting the right of issue to some particular bank or class of banks, and (2) restricting the right to a special department within the bank. Restricting the right of issue to special banks has taken a variety of forms. Sometimes the exercise of this function has been permitted only to banks having special charters from the legislature. Further, the legislature has granted such charters very sparingly, in France to one bank only, in England and Germany to one principal one, together with a few others which are permitted to play a subordinate rôle. In other cases the right of issue has been limited to companies incorporated in a certain way and acting under certain well-defined conditions. In the United States the right is by indirection restricted to banks organized under Federal Law.

That this plan of exercising great care in placing the right of issue tends to increase the security of the notes cannot be doubted. Manifestly it diminishes the chances that this important function shall pass into the hands of banks which are too loosely organized, too weak, too badly managed, or too dishonest to furnish a really safe note.

Restricting the right of issue to a special department is illustrated by the Bank of England. It contributes to the ultimate security of the notes in at least two ways. First, it in some measure frees the

note from control of those persons in the bank management who are under most temptation to be imprudent in extending unduly the issue, since these persons will belong to the *loan*, rather than to the the issue, department. In the second place any evasion of legal restrictions with respect to the amount or conditions of issue is more difficult when the issuing of notes is under the control of a separate department, since such evasion would in this case require guilty collusion between the responsible managers of the two departments.

The efficiency of the plan for promoting security which *limits the amount of issue* is manifestly derived from the fact that restricting the quantity diminishes the danger that an imprudent management will extend its issues until bankruptcy is inevitable, or that, in case of bankruptcy, the bank will find the amount of its outstanding notes too great to be paid. In our day substantially every banking system of importance puts limits of one or more kinds on the amount of notes issued. Such limits may be direct or indirect; that is, a maximum may be definitely specified, or conditions of issue may be imposed which by indirection limit issues.

The direct limitations are: (*a*) absolute, in terms of dollars, pounds, or francs; (*b*) relative, or proportional, to capital or other factor; (*c*) fixed, where maximum may never be exceeded; (*d*) elastic, where maximum may be passed under penalty of a tax.

The indirect limitations are: (*a*) to notes of high denominations; (*b*) frequent redemption; (*c*) restricting territory in which notes may circulate.

C. *Secured Issue Systems.*—Here are included all which attempt to safeguard the note-holder by giving him a *special* claim on all, or some, of the property owned by the issuing bank. Of such systems the simplest is that which gives the note-holder a first lien on the general assets of the bank. That is, should the bank fail, the note-holder must be paid in full before other creditors get anything. The fitness of this device to contribute to the security of the notes is plain.

Different forms of property are used for security. The general choice lies between (1) special securities, such as bonds and mortgages, and (2) ordinary banking assets, such as notes and bills of merchants and manufacturers. If the former are decided upon, choice has again to be made among bonds, stocks, and mortgages.

D. *Guaranteed Issue Systems.*—The essence of this system is to be found in the fact that some institution, or group of institutions,

outside the issuing banks becomes sponsor for that bank, guaranteeing that its notes shall be paid in any and all cases.

One of the most notable examples of the Guaranteed Issue system is to be found in the National Bank system of the United States. Here the guarantor is the Federal Treasury. That is, the Federal Treasury promises to redeem on sight all notes of insolvent national banks, thus giving to those notes all the security which the credit of a great and rich government can furnish. At the same time the Treasury is fully secured against loss by several simple provisions. First, it has in its possession, in lawful money, a fund belonging to the bank equal to 5 per cent of the bank's circulation. Secondly, it is custodian for Federal bonds belonging to the bank equal in value to the total circulation. Thirdly, it has a first lien on all the other assets of the bank.

III. THE ELASTICITY OF BANK NOTE CURRENCIES

In considering what are the best means for securing that the notes shall possess this property of elasticity it is convenient to distinguish *ordinary elasticity* and *emergency elasticity*. By the former is meant the capacity to expand or contract, according to the changes in need which characterize an ordinary year. By *emergency elasticity* is meant the power to expand or contract according to the changes in need which characterize a commercial crisis and the depression which follows it. Each sort of elasticity needs to be studied in the two phases essential to both, viz., expansibility and contractility.

118. THE "CURRENCY" VERSUS THE "BANKING" PRINCIPLE[1]

By N. G. PIERSON

"If," asks Lord Overstone—who was the first to proclaim the currency theory—"there be no bank notes in a country, can there ever be scarcity of metallic money in that country?" Would it be possible, for instance, for the balance of payments of such a country to become so unfavorable as to cause all the metallic money and bullion to be exported. The answer is, that it would not be possible, for when money is scarce its value rises and prices fall. And when prices fall exports increase and imports diminish until there is sufficient money and bullion in the country once more. A nation which

[1] Adapted from *The English Banking System*, pp. 243–52. (National Monetary Commission, 1911.)

does not use bank notes can never, in the long run, have too little metallic money in relation to other things. It may be a poor nation, certainly, but its capital will always include such a proportion of coined money as shall be needful.

It is different with a country which uses bank notes as well as coined money, for in such a country exportation of the latter does not necessarily cause a scarcity of money. The balance of payments becomes unfavorable; considerable exports of gold take place; but at the same time, by granting credit, the banks greatly increase their uncovered circulation. Will prices fall in this case too? Will the balance of payments change and cause the exported gold to return to the country? There is no reason to expect that it will, because no deficiency will have arisen in the monetary circulation. In the first of the two cases described the evil cures itself; in the second it grows more acute. With a mixed circulation, that is, with a circulation consisting partly of paper, the whole of the metal may disappear without causing any reduction in prices.

What, then, are the means which a country using bank notes should adopt in order to prevent the whole of its gold from being exported? The law should prevent the banks from substituting paper for the exported metal; or, better still, it should compel them to reduce their uncovered circulation in proportion to the exports of the metal. Suppose the stock of money required in a country to be represented by the figure 100 and to consist entirely of gold; if a quantity of this money corresponding to the figure 10 were to leave the country, there would remain 90, consequently not enough to meet the demand, and this of itself would cause prices to fall. But suppose the needful stock of 100 to consist of 50 parts gold and 50 parts paper. In this case, if, while 10 parts of the metallic money left the country, the paper circulation were increased to 60, the total stock of money would still remain at 100, and therefore suffice to meet the demand. And if a second 10 parts of the metallic money were to leave the country and to be followed by a third and fourth 10 parts, while the paper circulation was increased, at first from 60 to 70, then from 70 to 80, and then from 80 to 90, there would always be a sufficient stock of money in the country, and the exported gold would not return. This must be prevented. A deficiency in the monetary circulation must not be met with paper. Measures must be adopted to prevent the possibility of the whole of the specie and bullion being drained from a country and the bank notes of that country thus becoming inconvertible.

Such is the currency theory; now let us examine its defects. First of all it is not true that a bank invariably does wrong when it supplies a deficiency in the monetary supply by issuing notes. We forfeit one of the greatest advantages of a well-regulated banking system when we conform strictly to the currency theory. Suppose, for instance, that a crisis has occurred, and that the demand for money has greatly increased in consequence. Will it not have a salutary effect if the bank of issue is able to meet this demand, and would it not be the height of folly to interfere with such action on the part of the bank? Or suppose that the corn crop has failed, so that it has become necessary to import large quantities of grain for home consumption. Is it not an advantage in such a case not to have to part at a given moment with large quantities of interest-bearing bonds, or cattle, or machinery, or other necessaries, in order to pay for the imports of grain and to be able to pay for them in the meantime by exporting precious metals, for which paper can be temporarily substituted? Steps must be taken to ensure the return of the exported metal; but this need not be done immediately. A well-managed bank always has a larger metallic reserve than it needs in ordinary times, and of which it will therefore be able to spare a part in times of emergency. When the time of stress has passed, the bank will gradually restrict its credits, thus enabling its metallic reserve to accumulate once more. In the meantime it will have rendered a great service to the community, for it will have mitigated the adverse effects of the crop failure by enabling them to be spread over a more extended period of time.

There is a second mistake in the currency theory. It is not true that in a country where no bank notes are in circulation exportation of specie results in an immediate fall in prices, and consequently in an alteration in the balance of payments. It would be so if the bank *notes* were the only possible substitutes for specie, but bank *deposits* also serve as substitutes for specie. Bank notes and bank deposits differ only in form, since both take the place of specie when they are not covered by a metallic reserve. Let the needful stock of media of payment be represented by the figure 100, and suppose it to be made up of specie and bank deposits each to the extent of 50. If specie be now exported to the value of 10, but the banks at the same time grant credits to their depositors to the same amount, how is the fall in prices to take place which the supporters of the currency theory declare to be the inevitable result of the exportation of precious metal from a country

where no bank notes are in circulation? A circulation bank issues notes payable to bearer with which people pay each other. A deposit bank credits it to depositors' accounts, and the balances produced in this way also constitute a medium of payment. Wherein does the difference lie? The difference, we repeat, is one of form only.

The exponents of the currency theory never discerned this. Bank notes are money, they said, and bank deposits are book entries. But we are not concerned here with calling notes and bank deposits by their right names: the question is, what functions they perform; whether both do not supply the place of specie; whether both are not capable of supplying a deficiency in the specie circulation of a country where the cheque is a very common medium of payment. The chief error of Lord Overstone and his followers certainly lay in their not having understood this clearly. Their doctrine was not founded on a true conception of the bank deposit. Between the latter and the bank note they sought to establish a fundamental distinction which does not exist.

To the credit of their opponents, the "Banking Principle" men, it must be recorded that they did not fall into this error. To them the closeness of the relationship between the bank notes and the bank deposit was perfectly clear, and they may be regarded as having rendered a service in making it more widely known. If the controversy between the two schools had been waged round this point alone, we should not have a moment's hesitation in siding absolutely with the latter. But the adherents of the "Banking Principle" have erred so egregiously on another point in the controversy that we find it difficult to determine toward which of the two sides we feel most attracted.

The point to which we allude relates to the question as to how far a bank can bring itself and the community into danger by an excessive issue of notes. The adherents of the "Banking Principle" hold that no danger can be incurred by either so long as the notes remain convertible.

Should they cease to be so, then, indeed, too large a quantity of them may get into circulation, just as may happen in the case of notes issued by the Government and declared legal tender by enactment. But if the bank paper be convertible, how can it ever become redundant? What the public has no use for it returns to the bank, whose offices are always ready to accept the paper in exchange for specie. A bank can only put a definite quantity of notes into circulation;

any notes which it issues in excess of that quantity get returned to it under an iron law, as it were. This is proved by statistics. When we consult them we are surprised to find how little variation there usually is in the amount of notes in circulation. It was through Tooke more especially that a clear light was brought to bear upon this, and his conclusions have been fully verified by later investigations. There is indeed a remarkable degree of regularity in the demand for bank notes. We do not dispute the contention of the adherents of the "Banking Principle" that so long as bank paper is convertible any quantity of it issued in excess of a certain sum gets returned to the bank at once.

It is strange, however, that people should ever have imagined that this constituted a safeguard against the consequences of imprudent bank management. It is precisely in the return of the notes to the bank that the danger lies. If the notes did not return, the bank that issued them could never get into difficulties. The fact is, however, that these institutions give rise to a very serious condition of things if they issue notes to excess.

For how do the notes return? By repayment of advances? Do we learn from the statistics, which Tooke and others have compiled with so much care, that when a bank, by granting credit too freely, issues paper in excess of the requirements of trade, the public repays its outstanding loans, maturing bills are met and so fresh ones are discounted, so that in this way the circulation is once more reduced? Quite the contrary: the statistics show that the redundant notes are offered in exchange for specie or used in purchasing bullion from the bank, the specie or bullion being then exported. In this way the amount of the circulation continues the same, it is true, but its components are no longer the same; "uncovered" is substituted for "covered" circulation, and the ratio between metallic reserve and note circulation becomes less favorable.

Tooke's statistics plead against him instead of for him. It is just *because* of there being a limit to the amount of notes which a bank can keep in circulation that an excessive paper issue becomes possible. For the paper issue becomes excessive from the moment that a disproportion exists between the amount of notes in circulation and the amount of metal in reserve against them.

"The question of banks of issue will always be misunderstood, and all discussion on the subject mere fencing with big words, so long as people fail to realize that a bank, when issuing paper, is simply an instrument in the hands of the public." Thus wrote a Dutch adherent

of the "Banking Principle" several years ago. So far as concerns the *amount* of its circulation, a bank is undoubtedly an instrument in the hands of the public; but it is not the instrument of the public in the matter of the *items* which go to make up that amount, and it is these, more especially, that one has to consider when judging whether a note issue is excessive or not.

(2) HISTORICAL EXPERIENCES WITH NOTE ISSUES

119. THE RHODE ISLAND LAND BANK[1]

At the close of the Revolutionary War the people of Rhode Island found themselves in extreme poverty and heavily burdened with their share of the national debt. The war had seriously crippled their trade, upon which they were mainly dependent, and in their distress the people, instead of patiently waiting for relief to come by the slow process of rebuilding their trade, turned to paper money for relief. They began to clamor for a paper bank in 1785, and when petitions for such a bank were rejected by the General Assembly, a new party was organized with paper money as its chief principle. They went before the Assembly again in 1786, and their petitions for a paper bank were met with counter-petitions against it, signed by the merchants of Providence, and the project was defeated again by a vote of two to one. They then carried the question into the elections and won a surprising victory, gaining control of the General Assembly by a large majority. This body assembled in May, 1786, and one of its first acts was the passing of a law establishing a paper-money bank of one hundred thousand pounds.

Every farmer or merchant who came to borrow money must pledge real estate for double the amount desired. The money was to be loaned to the people upon this pledge according to the apportionment of the last tax, and must be paid into the treasury at the end of the fourteen years. Great expectations were entertained by the farmers of the beneficent results which were to follow upon this new influx of wealth. "Many from all parts of the State made haste to avail themselves of their good fortune, and mortgaged fields strewn thick with stones and covered with cedars and stunted pines for sums such as could not have been obtained for the richest pastures. They had, however, no sooner obtained the money and sought to make the first payment at the butcher's or baker's, than they found that a heavy discount was taken from the face value."

[1] Adapted from the *Century Magazine*, XLII (1891), 151–52.

The depreciation of the new money began literally with its issue. Every merchant and tradesman in the State refused to receive it for its face value, and the holders of it refused to make any discount. The General Assembly came to the aid of the bank and sought to give its paper money full value by statutory enactment. A forcing act was passed subjecting any person who should refuse to take the bills in payment for goods on the same terms as specie, or should in any way discourage their circulation on such terms, to a fine of one hundred pounds and to the loss of his rights as a freeman. This made matters worse than ever. Merchants and traders refused to make any sales whatever, many of them closing their shops, disposing of their stock by barter, and going out of business. In fact, money almost ceased to circulate at all. Nearly all kinds of business was transacted by barter, rents were paid in grain and other commodities, and the only people who used the paper money were those who had borrowed it on their land. The chief cities of the State, Providence and Newport, presented a very remarkable spectacle. Half their shops were closed, their inhabitants idle, and their streets animated only by groups of angry and contentious men blaming one another for the blight which had fallen upon their business and industries. In order to retaliate upon the merchants and traders for refusing to take their money, the farmers refused to bring their produce to market. A famine was so imminent in Providence because of this withholding of supplies that a town meeting was called to devise means for obtaining the necessaries of life. To provide immediate relief for persons in want of bread five hundred dollars was authorized to be borrowed by the town council. In Newport a mob brought on a riot by attempting to force grain dealers to sell corn for paper money.

In August, about two months after the establishment of the bank, affairs became so desperate that a State convention controlled by the country towns adopted a report recommending the General Assembly to enforce and amend the penal laws in favor of paper money and advising farmers to withhold their produce from the opponents of the bank. The General Assembly, convened in special session for the purpose, passed an additional forcing act, which suspended the usual forms of justice in regard to offenders against the bank, by requiring an immediate trial, within three days after the complaint was entered, without a jury and before a court of which three judges should constitute a quorum, whose decision should be final, and whose judgment should be instantly complied with on

penalty of imprisonment. The fine for the first offense was fixed at from six to thirty pounds and for the second at from ten to fifty pounds. "This monstrous act of injustice," says Arnold, "was carried through the legislature by a large majority, and the solemn protest against it as a violation of every particle of moral and civil right, of the charter, of the articles of confederation, of treaty obligations, and of every idea of honor or honesty entertained among men," which a minority of the members presented, was not allowed to appear on the record.

This second forcing act brought matters to a crisis. A butcher in Newport was brought into the Superior Court on a charge of refusing to receive paper money at par in payment for meat. A great concourse of spectators attended the trial, which was before a full bench of five judges. Leading lawyers appeared for both sides, and their arguments occupied a whole day. Two of the judges spoke against the forcing acts, and the other three were of the same mind. On the following morning the formal decision of the court was announced, declaring the acts unconstitutional and void, and dismissing the complaint. The wrath of the General Assembly at this decision was great. A special session was at once convened, and the judges were summoned, in language of incredible arrogance, to appear before the Assembly to assign the "reasons and grounds" for their decision. Three of the judges obeyed the summons, but as the other two were detained by sickness the hearing was postponed till the next session. At the next session four of the offending judges were removed. Before adjourning the General Assembly prepared a new act to "stimulate and give efficacy to the paper bills." This was called the Test Act, and it contained one of the most remarkable oaths ever prescribed to a free people. Everyone taking the oath bound himself in the most solemn manner to do his utmost to support the paper bank and to take its money at par. All persons refusing to take the oath were disfranchised. Ship captains were forbidden to enter or to go out of ports of the State, lawyers were not to be allowed to practice, men were not to be allowed to vote, politicians were not to be allowed to run for office, and members of the legislature were not to be allowed to take their seats until the oath had been taken. This was so stringent a measure that the General Assembly was afraid to take the responsibility of enacting it, and after considering it referred it to the people of the towns for approval. Only three towns in the State voted in its favor, all the others rejecting it.

This ended all efforts to force the people to take the money at par in ordinary business transactions. The General Assembly, in January, 1787, formally repealed the forcing acts, and then took the first step toward the repudiation of the State debt by ordering the treasurer to pay off one-fourth of it in the bills received for taxes, that is, in the depreciated paper money, which, at that time, was circulating on the basis of six to one. By successive steps of this and similar kinds the entire State debt was extinguished, public creditors being forced to take it on terms prescribed by the State or to forfeit their claims. The last instalment of the debt was got rid of in 1789, in a forced settlement, when the paper money which the helpless creditors received was worth only one-twelfth as much as coin. "Had a general act of insolvency," says Arnold, "relieving all debtors from their liabilities and the State from its legal obligations been passed in the first instance, the same end would have been more speedily accomplished, and the means would not have differed very widely from those that were actually employed. . . . . It fell but little short of repudiation."

During 1787, when the value of the paper money ranged from one-sixth to one-tenth that of coin, bills in equity for the redemption of mortgaged estates were filed in large numbers in the courts. The Superior Court of Newport declined to try any case in which a large sum was involved. Suitors came to court with paper money in handkerchiefs, bags, and pillowcases, asking to have the holders of their mortgages forced to take this at par in redemption of their lands. One bag, containing fourteen thousand dollars, was brought for the redemption of a single farm. But the court refused to try all cases of the kind. The value of the paper money dropped steadily till fifteen paper dollars were worth only one coin dollar. In August, 1789, the General Assembly showed its first sign of returning reason by suspending the operation of the tender law. It followed this by repealing the statute of limitations, because of the depreciation in the value of paper money, and by extending the time allowed for the redemption of mortgages from five to twelve years. Finally, in October it repealed as much of the Paper Bank act as made the bills a tender at par, and debtors were authorized to substitute property at an appraised value for money in discharge of debts. The act which effected the repeal fixed the value of the paper bills at fifteen to one. This was the end.

120. EARLY STATE BANK NOTE ISSUES[1]

By DAVIS R. DEWEY

I. VOLUME

The restrictions laid down in the charters of state banks in the period before the Civil War were exceedingly vague and lax, and little protection was given to the currency. Many of the acts of incorportation did not make specific requirements with reference to the volume of notes that might be issued, but covered the point indirectly through limitations in the amount of indebtedness, including deposits.

The states were generous in their grants of indebtedness. At the outset this limitation was generally set at two or three times the capital. This amounted to practically no limitation at all, at least upon banks with a large capital, and admitted an issue of notes out of all proportion to the specie fund. Naturally it afforded an opportunity for a wide range and violent fluctuations in the amount of outstanding currency, depending upon applications for discounts.

In many cases, however, particularly in the northern states, the banks did not issue the legal maximum. There was a marked variation, also, in the amounts issued by banks in the country and those in the city, the latter doing more of a discount and deposit business.

II. REDEMPTION

In the earliest charters there was no express provision made for the redemption of notes, nor was there any penalty for non-redemption. The issuing of notes was generally regarded as the principal object of a bank's existence instead of an incidental function. The limitation of note issues to a certain proportion of the capital which was often represented by stock notes of shareholders rather than solid funds was of little consequence. Practically the only security for convertibility lay in the liability imposed upon stockholders, and particularly upon directors, in case of failure or mismanagement. Indeed, many in the earlier part of the nineteenth century considered that it was improper and injurious to call upon a bank for specie in payment of its bills. "Brokers who sent home the bills of country banks were denounced as speculators and bloodsuckers, whose extirpation would be a public benefit." Respectable men defended the

[1] Adapted from *State Banking before the Civil War*, pp. 53–224. (National Monetary Commission, 1910.)

conduct of banks in interposing obstacles to the payment of their notes to brokers who had bought them up to discount. A Boston broker was brought before the grand jury of Vermont for demanding payment in specie for the bills of one of its banks, on the complaint of the attorney general that he was guilty of an indictable offense.

As a result of disastrous experience various methods were tried to enforce redemption. On the one hand the public, through its legislatures, gradually imposed penalties upon banks for failure to honor their note obligations, and on the other hand prudent and well-managed banks found it necessary, in self-defense and for their mutual benefit, to establish voluntary arrangements whereby notes could be promptly redeemed. Until about 1830, however, the situation was on the whole deplorable, particularly so in the South and West; and with few exceptions the situation continued bad practically down to 1860. During the first half of the century various devices were employed by speculative banks to increase their circulation and avoid redemption. In 1818 a legislative committee of New York enumerated some of the schemes which were thus adopted, such as placing a fund in a distant bank to redeem notes, and, after it became generally known that the notes were at par in that quarter, issuing a new emission signed in ink of a different shade, at the same time giving secret orders to the correspondent bank not to pay the notes thus signed. Others issued a species of paper called "facility" notes, not payable in money, but receivable by banks issuing them in payment of debts due. Again, large accommodations were given to individuals on agreement that the borrowers should keep in circulation a certain sum for a specified time, the notes being designated by a private mark, and in case the notes were returned before the date set the borrowers were to be charged with the discount on such sum for the remainder of the period. To others loans were made on condition that the borrowers pay their notes when due in what was called current money; that is, notes of banks which were current throughout the State, but not including the bank's own notes. The borrower, therefore, was often obliged to pay, as the time drew near, a premium in order to secure acceptable notes.

Most of these schemes bordered so closely upon fraud that they had to be abandoned. Other methods, however, were employed, some of which may be enumerated, as follows:

1. About 1835 it became common for banks in the North to employ agents to exchange bills of one bank for notes of other banks.

This practice was continued in Massachusetts and complained of by the commissioners in a report of 1840. The bank inspector of Vermont, 1837, criticized the practice and characterized it as a kind of piracy of one bank on another; a bank situated within reach of other banks sometimes had to decide against discounting an application for a loan because of the belief that the bills would be promptly taken up and sent back for redemption. This consequently forced banks to seek for discounts at distant places.

2. In some States banks made their notes payable at some other place than where the office was located; for example, in 1816 the Dedham Bank of Massachusetts issued three-fourths of its circulation drawn on the cashier of the bank at Middletown, Connecticut. The legislature promptly passed an act prohibiting the issue of notes payable at other banks unless payable also at the bank of issue. This act, however, did not extend to checks or drafts for sums exceeding $100, and it was subsequently learned that the Dedham Bank issued bills for $101 in order to avoid the penalty. In the Southwest this practice became an established custom.

3. Notes were loaned on an agreement that they would not be presented for redemption within a certain time. In 1839 the bank commissioners of Massachusetts complained that some banks in that State loaned bills at a lower rate of interest on condition that they should be kept in circulation. In Connecticut the legislature in 1837 found it necessary to pass a law prohibiting banks from making loans which involved an express agreement that the notes would not be returned to the bank for redemption within a limited time.

4. A most common method was putting notes in circulation at distant points. Its extreme form is to be found in the "Saddlebag Bank" described by Niles in 1820: "A bank whose notes were carried about the country in saddlebags to be exchanged with landowners for their notes." In the middle of the century the practice was illustrated in the development of "Wildcat banks" in the West. But banks in the East were also guilty. Ill-managed banks supplied brokers, shopkeepers, tavern-keepers, drivers, and workmen with quantities of paper and paid them liberally for getting it off. Agents carried these notes to every corner of the country, even to the British provinces, and beset travelers for an exchange of bills. One broker in Rhode Island put off in one year more than $200,000 of the notes of a speculative bank, mostly in one-dollar bills. In 1840 the commissioners of Connecticut complained that several of the banks made

discounts upon an understanding that the notes were to be put in circulation at a distance. Branch banks in the South employed this method to a considerable degree.

After 1837 the question of having an adequate specie basis to support circulation became a matter of common discussion. Practically the only provisions relating to the holding of specie were those requiring original payments in gold and silver of a certain portion of the capital stock before the bank began business, but as a rule banks did not retain this coin after operations were once begun. Another indirect requirement was that which prescribed a penalty in case a bank refused or delayed redemption of bills. In these provisions it will be observed, however, that there was no specification of keeping on hand a fixed amount.

The experience of Massachusetts may be taken as fairly typical of the Northern states. The joint committee on banks and banking reported that it would be unconstitutional to impose upon banks the requirement that they should keep on hand 10 per cent in specie, as this would be a new burden not contemplated in the original charters. In 1850 the subject was again investigated by the legislature, but a committee thought that application of a definite rule was too difficult to determine; there was a great variation in the amount of specie kept by individual banks; in Plymouth County it varied from 16 to 24, and in Norfolk from 6 to 30 per cent. In 1855 the bank commissioners reported that the banks kept too little specie; country banks with a capital of more than $26,000,000 had but about $1,000,000 in specie, and the city banks with a capital of $33,000,000 had an average of only about $3,000,000. In the next year the commissioners again referred to the subject and noted that the banks had not improved their position: "We continue to feel surprised that judicious men connected with banks still continue to speak with indifference of the item of specie." In 1858 an act was passed requiring the banks to keep on hand in specie 15 per cent of their aggregate liability for circulation and deposits. Banks outside of Boston, however, could count as specie their balances in other banks, not bearing interest, which could be applied to the redemption of bills. Under this proviso a country bank was not obliged to keep a dollar in its own vaults.

In 1861 the average holding for both notes and deposits was 7.5 per cent for the country banks and 21 per cent for the banks of Boston.

Although there was little legislation in States south of New York on this subject, the need of a better protection to the circulation

through the holding of coin was frequently referred to by the bank commissioners and legislative committees. Not, however, until 1860 was there any specific requirement as to specie holdings by banks in Pennsylvania, and in the law then passed only 8 per cent in specie or its equivalent was demanded. Virginia passed an act in 1837 providing that banks should have one-fifth of their notes in specie and forbade a bank to make any loan when the reserve fell below this limit. This ratio was observed in subsequent legislation.

In 1838 the bank commissioners of Mississippi advised that the banks should have $1 in specie for every $3 in circulation and deposits. Louisiana had the credit of taking the most advanced position of all the States in her reserve requirements for banks; for many years the Louisiana State Bank maintained a specie holding of one-third its total responsibilities. In 1838 the associated banks of New Orleans agreed to carry, in 1839, specie holdings of one-third their aggregate circulations and deposits in specie, while a sum equal to the remaining two-thirds must be invested in short-time paper payable absolutely at maturity. Discounting by a bank which had been ten days below the specie line was made an act of insolvency, requiring liquidation, and directors or managers who assented to the violation of the law on this point were made individually liable for all debts. This legislation was approved by its results; banks of New Orleans passed successfully through the crisis of 1837, and in March, 1861, at the beginning of the Civil War, they held sixteen millions of specie to a capital of twenty millions.

Ohio, in 1839, enacted that the volume of bills issued should not exceed three times the amount of specie on hand, exclusive of deposits. By the free banking act of 1851 banks were required to have on hand in gold or silver, or their equivalent, 30 per cent of their outstanding notes. The State Bank of Iowa, 1858, required a reserve of coin of one-fourth the circulation and a similar reserve in current notes for the deposits.

121. NOTE ISSUES UNDER THE FREE-BANKING SYSTEM[1]

BY JOHN JAY KNOX

The free-banking system of New York was authorized on April 13, 1838. Under its provisions any number of persons were authorized to form banking associations upon the terms and conditions and

[1] Adapted from *Report of Comptroller of the Currency*, 1876, pp. xxiii-xxxvi.

subject to the liabilities of the act. The law originally provided that such associations, on depositing stocks of the State of New York or of the United States, or any State stock which should be, or be made, equal to a 5 per cent stock, or bonds and mortgages on improved and productive real estate worth, exclusive of the buildings thereon, double the amount secured by the mortgage, and bearing interest at not less than 6 per cent per annum, should receive from the Comptroller of the State an equal amount of circulating notes. Previous to the year 1843 twenty-nine of these banks, with an aggregate circulation of $1,233,374, had failed; and their securities, consisting of stocks and bonds and mortgages amounting to $1,555,338, were sold for $953,371, entailing a loss of $601,966. The avails of the securities were sufficient to pay but 74 per cent of the circulation alone. The losses to the bill-holders occurred only in the case of those banks which had deposited State stocks other than those of New York. The law was thereupon so amended as to exclude all stocks except those issued by the State of New York, and to require these to be made equal to a 5 per cent stock. An amendment in 1848 required that the stocks deposited should bear 6 per cent interest instead of 5, and that the bonds and mortgages should bear interest at 7 per cent, and should be on productive property and for an amount not exceeding two-fifths of the value of the land covered by them. Subsequently, on April 10, 1849, the law was again so amended as to require that at least one-half of the securities so deposited should consist of New York State stocks, and that not more than one-half should be in the stocks of the United States, the securities in all cases to be, or to be made, equal to a stock producing an interest of 6 per cent per annum, and to be taken at a rate not above their par value and at not more than their market value. In 1840 a law was passed requiring the banks of New York to redeem their notes at an agency of the bank, either in New York City, Albany, or Troy, at one-half of 1 per cent discount.

The constitution of 1846 also provided that, after the year 1850, stockholders of banks issuing circulating notes should be individually responsible to the amount of their shares for all debts and liabilities of every kind, and that, in case of the insolvency of any bank or banking association, the bill-holders should be entitled to preference in payment over all other creditors; and the constitution, as amended in 1874, still contains substantially the same provisions.

After the New York free-banking law had been perfected by various amendments, and subsequent to 1850, a number of the States,

among which were Massachusetts, Vermont, Connecticut, New Jersey, Ohio, Indiana, Illinois, Wisconsin, Tennessee, Virginia, and Louisiana, adopted the system which had proved so satisfactory in New York. The Massachusetts and Louisiana acts, in addition to the many excellent features of the New York act, required an ample reserve to be kept on hand, and also contained other restrictions, which were subsequently embodied in the national bank act. In nearly all the States which adopted the free-banking system charters for banks were still granted which authorized the issue of circulating notes without security and in excess of capital. These were more profitable, and therefore in most of the States but few banks were organized under general laws. In other States the best features of the New York law were omitted. The shareholders were not made personally liable; the security required was not sufficient; the notes were issued in proportion to the stock and bonds deposited and not in proportion to the cash capital; no provision was made for the prompt redemption of the notes at any commercial center, and a majority of the directors and shareholders were frequently non-residents. Many of the organizations were not banks, in any true sense of the word, but were associations without capital, located at places not easily accessible, and owned by non-residents, who availed themselves of ill-considered legislation to convert their bonds into currency at rates higher than the market value—drawing the interest on their bonds, but transacting little or no business at the place of issue. When the bonds depreciated in value, and any considerable amount of notes were presented at their counters for redemption, the banks failed, the securities were sold by the authority of the States, and the avails were distributed among the note-holders.

The governor of Indiana, referring to such banks, says in his message for 1853: "The speculator comes to Indianapolis with a bundle of bank notes in one hand and the stock in the other; in twenty-four hours he is on the way to some distant point of the Union to circulate what he denominates a legal currency authorized by the legislature of Indiana. He has nominally located his bank in some remote part of the State, difficult of access, where he knows no banking facilities are required, and intends that his notes shall go into the hands of persons who will have no means of demanding their redemption."

The *New York Journal of Commerce* in June, 1853, referring to the same subject, says: "The operators in these schemes have turned

to the West, and, under the free-banking laws of Indiana, Illinois, and Wisconsin, are prepared to flood the channels of circulation with their notes. It is not western capital that is seeking profitable employment, nor is it eastern capital invested at the West. Not a dollar of the new currency will be issued where it is likely to be presented for redemption."

122. THE SAFETY-FUND BANKS[1]

By JOHN JAY KNOX

The safety-fund system was recommendeed by Mr. Van Buren in his message as governor of New York in 1829, and the act establishing it passed the legislature and became a law on April 2 of that year. Forty banks were then in operation, and their charters were about to expire. It is said to have been suggested by a system which originated with the Hong merchants in China, by which each member contributed to uphold and cherish the weak members of the Hong. The act authorized the issue of circulating notes not exceeding twice the amount of capital paid in and limited the loans to twice and one-half the amount of the capital. The feature of most importance in the act was the establishment of a common fund, by a provision requiring every banking corporation thereafter organized, or whose charter should be renewed or extended, to pay annually to the treasurer of the State a sum equal to one-half of 1 per cent of its capital stock paid in, the payments to be continued until every such corporation had paid into the treasury 3 per cent upon its capital stock. The fund thus created was made applicable to the payment of the circulation and other debts of any insolvent bank contributing to the same. If the fund became at any time diminished by payments from it, each bank was required to renew its annual contribution until the deficiency was restored.

Contributions to the fund were first made in 1831. In 1841–42 eleven of the safety-fund banks failed, with an aggregate capital of $3,150,000. The sum which had been paid into the fund by these banks was but $86,274, while the amount required for the redemption of their circulation was $1,548,588, and for the payment of claims of their other creditors $1,010,375, making a total of $2,558,933. According to the report of the State Comptroller, made in 1849, the whole amount contributed to the fund down to September 30, 1848,

[1] Adapted from *Report of the Comptroller of the Currency*, 1876, pp. xxi–xxii.

was but $1,876,063; and even if full payments, as required by law, had been made by all the banks organized under the system, the fund would still have been insufficient to pay the deficiency occasioned by the insolvency of these eleven banks. This deficiency was subsequently provided for by the issue of a 6 per cent stock by the State, to be reimbursed largely by new contributions from the banks. During the year 1842 the act was so amended that the safety-fund became a security only for the notes in circulation and not for the other debts of the banks.

(3) ASSET CURRENCY

123. THE ARGUMENT FOR ASSET CURRENCY[1]

While a bond-secured circulation cannot furnish an elastic medium, expanding and contracting automatically, it is quite otherwise with a currency that is based upon the general assets of the issuing banks. The volume of notes put forth under such circumstances will, like deposits, automatically expand in volume by being issued upon demand from legitimate borrowers and automatically contract by being returned to the bank when the need for the currency is past. Under such a system any increase in the demand for money, and consequent higher rate of interest, adds to the inducement to issue notes instead of making it less profitable, as in the case of bond-secured currency.

There is, moreover, no delay or inconvenience such as exists where bonds must be purchased and deposited with the Treasurer before the notes can be issued. The assets on which the notes are based are the ordinary commercial paper acquired by the bank in the course of its regular business. The bank is thus always ready to increase its circulation if the public will use more notes, and all considerations of profit lead it to do so, as its power to loan will be increased in proportion as it is able to keep more notes in circulation. The same motives acting on all the banks lead to active competition, which results in the prompt redemption of all notes deposited or paid into any bank.

Another result of a system of bank currency based on general assets—indeed a corollary of what has just been stated—is that each community is thereby enabled to furnish for itself most easily and

[1] Adapted from *Report of the Monetary Commission of the Indianapolis Convention*, 1898, pp. 231–34.

economically just such currency as it requires for the convenient transaction of its business. The rural districts are not forced to go to more expense in creating their currency—notes—than are the commercial centers in creating that which they use—deposits.

The only arguments which have been seriously opposed to this plan have been based on the fear that the security provided by general commercial assets would not be equal to that afforded by bonds. The validity of the objection depends entirely upon the character of the assets. Of what, then, do the ordinary assets of banks consist, and what is their amount and character? These assets are the result of loans made by the banks to those carrying on the business of the country; they represent in the main marketable products or commodities in the process of exchange or distribution. They are made by bankers whose interest it is to see that they are sound, inasmuch as the first loss, if any, must fall on the bank and its stockholders. These assets, therefore, are based on and secured by the best business of the country; their character rests on that which is a condition precedent to all solvency—individual, corporate, and governmental. It is conceivable that a government may become bankrupt while the great portion of the private business of the country remains solvent; indeed, this has occurred. But it is not conceivable that the bulk of the private business of a country can become worthless and the government of that country remain solvent; and this has never occurred. These considerations make it clear that, taken in the aggregate, there can be no safer security for bank notes than that afforded by the combined commercial assets of the issuing bank. No revulsion which has ever taken place in this or any other country of similar commercial development has been so serious that it would have impaired the value of notes secured by such assets.

124. THE NEED OF A SYSTEM OF REDEMPTION[1]

To secure real elasticity it is not enough that the circulation should expand when the necessities of commerce require more currency; it is just as essential that it should promptly contract when those necessities have gone by. Under the head of redemption it is proposed to consider the mechanism by which this withdrawal of any excessive currency is enforced and by which the supply of currency is adjusted to meet the lessened demands.

[1] Adapted from *Report of the Monetary Commission of the Indianapolis Convention*, 1898, pp. 324–34.

The whole process is merely an application by each bank of a very simple principle, the key to which is self-interest. Every banker who is free to issue additional notes without inconvenience or cost has a decided interest in withdrawing from circulation the notes of another banker in order to make room for his own. This is the force back of redemption. Under a system where every bank was free to issue notes up to, say, 80 per cent of its capital—as free as it would be to receive deposits—is it conceivable that a bank whose issues were only 50 per cent of its capital, upon receiving on deposit the notes of another bank, would pay them out again? Why should it? For any purpose for which a bank note will serve—such as the cashing of a check, or the discount of a note, or the grant of a loan—its own notes can be used without cost to itself. So it naturally pays out its own notes and presents the others for redemption, thus adding to its cash reserve.

Under such a system a banker whose issues had not approached the 80 per cent limit would no more think of allowing the notes of another bank to remain idle on his hands or to be paid out again where his own notes could be used than he would today of holding checks on that bank just because he considers them good, or of voluntarily or gratuitously transferring to such bank a portion of his customers' deposits. Such an act would in fact be a loan without interest to that other bank for the length of time the note was held, or (being put into circulation) for the time it might be expected to remain outstanding, and, under a system of comparative freedom of note-issue, would be the grossest disregard of business principles.

It is in this way that, under any banking system sufficiently liberal in terms to permit adequate expansion, there is sure to be sufficient incentive to retirement to keep the outstanding volume of note issues down to the needs of business. In other words, there is a very close connection between the ease or difficulty of issuing notes and the activity and efficiency of the redemption system. The development of the latter is dependent almost entirely upon the existence of a system of issues sufficiently liberal to permit expansion even beyond the needs of business, for it is only then that the competition of the banks for a legitimate profit will furnish the incentive which lies behind a system certain to withdraw redundant currency. When the notes are no longer wanted by the public for the convenient transaction of its business, they will be deposited in some bank, and as

soon as they are thus deposited they will be put on the road to redemption and retirement through the operation of the principles described above.

The function of a system of active note redemption as a regulator of the character of the currency as well as of its volume also demands consideration. It is only when the value of a promise to pay money is being constantly put to test that there exists the danger of its depreciation. And it is through redemption, in the case of a bank currency, that this test is made. Where no real redemption exists, there may be danger of expansion, since the most powerful agency in keeping down the supply of currency to the amount demanded and keeping its character up to the standard is absent; but where the notes are being constantly tested by their presentation for redemption, none can be kept in circulation which are not up to the standard, and no more can be issued than the public wishes to use. And to place impediments in the way of quick redemption is practically to affect the value of the currency—to lower it, to some extent, from the standard to which it should conform.

In Canada the banks are left perfectly free to issue notes as they may think best up to the limit imposed by law—the par of their capital. Each banker, as the only means by which the field can be kept clear for his own circulation, regularly sends in for settlement the notes of his neighbors precisely as he does their checks. If the notes are those of a bank having a branch in the same town, he sends them to that branch for settlement; if not, he sends them to the most convenient town containing both a branch of his bank and a branch of the bank whose notes he wishes to present for redemption. Except in those occasional instances where the legal limit of circulation has been reached, the paying out by one bank of the note of another is regarded in Canada as an instance of grossest disregard of business principles. The result of this universal attitude of the Canadian banks in constantly insisting upon daily redemption of notes is that any issue beyond the current needs of business soon reaches the tills of some bank, by which it is promptly presented for redemption.

It should be noted in this connection that the redemption involved is of the nature of a clearing-house transaction. It is very rare that the notes of a bank are presented to it for redemption in actual coin. For as the notes are thoroughly secure, the public has no reason to prefer gold or a Dominion note to the note of a Canadian bank. So that the only redemption is that forced by the banks themselves;

and this, where there are clearing-houses, takes place through them, and elsewhere by exchanges between individual banks—in which latter case balances are settled sometimes by Dominion notes, but ordinarily by draft upon the head office. It appears from the best evidence obtainable that, on the average, the life of the notes of a Canadian bank is not far from thirty days. In other words, the entire circulation is, on an average, redeemed twelve times over in the course of a year.

The most interesting feature of the banking experience of New England was the system of bank-note redemption which was there developed—the Suffolk Bank system—taking its name from the bank which acted as the redeeming agent.

Prior to the inauguration of the system, in 1824, the notes of banks situated at some distance from Boston were received only at a discount by the Boston banks. This was usually only sufficient to cover the expense involved in sending the notes home for redemption, and in later years it rarely exceeded one-half of 1 per cent for the bills of Massachusetts banks. This discount, however, although slight, allowed the bills of the country banks to circulate in Boston to the exclusion of those of the Boston banks, which, being redeemable on the spot, remained at par. So long as the issuing country banks were known to be solvent, their notes passed readily from hand to hand in ordinary business transactions, although at the banks they were not accepted at par. Persons having payment to make at a Boston bank, therefore, found it advisable to lay aside for that purpose any notes of Boston banks which might come into their hands, as such notes and specie were the only forms of currency accepted at par by the banks. The outside notes, however, which were readily accepted in business, were paid out again by the merchants, and thus kept in circulation. The consequence was that the field of circulation, even in Boston, was monopolized by the notes of outside banks, on the principle that the cheaper money drives out the dearer.

It was to remedy this state of affairs, by insisting upon the maintenance of all the currency at par, that the Suffolk Bank system was inaugurated. The general arrangement made between the Suffolk Bank and the other banks of New England, which were soon drawn into the system, was as follows:

Each bank placed with the Suffolk a permanent deposit of $2,000 and upward without interest—the amount depending upon the capital and business of the bank. In consideration of this deposit,

the Suffolk Bank redeemed all the bills of that bank which might come to it from any source, charging the redeemed bills to the issuing bank once a week, or whenever they amounted to a certain fixed sum, provided that the bank kept a sufficient amount of funds to its credit, independent of the permanent deposit, to redeem all of its bills which should come into the possession of the Suffolk Bank. It was further agreed that the Suffolk Bank should receive from any of the New England banks which kept an account with it the bills of any other New England bank in good standing, placing them to the credit of the bank sending them on the day following their receipt. When any bank refused to join the Suffolk Bank system, the Suffolk Bank merely presented its notes for payment in specie at its counter. In such cases notes of other banks would not be accepted in redemption.

This practice united practically all the banks of New England, and in a large measure insured the prompt redemption of their notes at par at all times in Boston. Inasmuch as this city was the center of the commercial interests of New England and because Boston funds were at par elsewhere, a note which could be used at par in remittances to Boston was never depreciated in any part of New England.

At first there was much hostility to the system on the part of some of the banks. They objected strenuously to the necessity imposed on them of making arrangements for the redemption of their notes at Boston, and occasionally a bank seceded from the system in the hope of getting an increased circulation. In such cases, however, it at once appeared that its circulation was then limited to the immediate vicinity of the place of issue, and the inconvenience and loss of confidence resulting led to a renewal of the agreement. In general, it was the practice of each bank to gather together the bills of all the other banks paid over its counter and include them in its weekly remittance of its own bills. In this way there was very little necessity for redemption in specie, the Suffolk Bank merely acting as a clearing-house where the notes of one bank were offset against those of the others.

(4) BANK NOTES UNDER THE NATIONAL BANKING SYSTEM

125. REASONS FOR ESTABLISHING THE NATIONAL BANKING SYSTEM[1]

BY ANDREW McFARLAND DAVIS

Mr. Sherman advocated the bill because it would furnish a uniform currency; because it would create a market for bonds; because through the sale of bonds thus effected the nation would be consolidated; because it would furnish depositories for public funds, and because the bills could be used in payment of taxes. Greenbacks he considered not suitable for the desired uniform currency, because they were liable to inflation. The more of them that were put out the greater had been the emissions of state banks. "The consequence has been," he said, "that while the Government has been issuing its paper money, some of the banks have also been inflating the currency by issuing paper money on the basis of United States money. There is no way to check this except by one uniform currency system." What benefit, he asked, does the United States obtain from this system? "The first benefit is, there is a market furnished for the bonds of the United States. Then banks must furnish 10 per cent more of the bonds of the United States than they receive in paper money. This at once, if the full amount is issued, which I do not anticipate within a year, will furnish a market for $330,000,000 of bonds, and we know very well by the laws of supply and demand that where a demand is made for a given article the demand extends far beyond the particular want." He thought the passage of the bill would "promote a sentiment of nationality," the want of which was one of the evils of the times.

126. EVILS OF NON-UNIFORM ISSUES[2]

BY ANDREW McFARLAND DAVIS

The *Chicago Tribune* on February 13, 1863, states that "Every one of the 1,395 banks in the loyal states has its separately engraved and printed notes, differing more or less in form or design pictorially,

[1] Adapted from *The Origin of the National Banking System*, pp. 79–80. (National Monetary Commission, 1910.)

[2] *Ibid.*, pp. 25–26.

and each bank issues the various denominations which by usage seem to have become the rule.

"Taken together, each bank issues bills of at least six different denominations. The 1,395 banks therefore issue 8,370 varieties of notes, which people are expected to distinguish from counterfeits. Moreover, the varied issues of the fraudulent, broken, and worthless banks should not be overlooked. Of this class of 'retired' banks, as they were styled, 854 are enumerated in the published list furnished by the 'descriptive list' for January, 1863. Such as these have therefore contributed their quota to this promiscuous catalogue.

"One phase of our paper currency engendered by this multiform system calls for special notice and consideration. We refer to counterfeiting. It may be safely stated that the art, as pursued in the United States, is without parallel, and that, without vaunt or hyperbole, we can 'beat the world' on this, our national specialty—counterfeiting. A species of literature, even unknown to the rest of the world, has been initiated among us, and no merchant or mechanic deems himself safe unless he consults the *Counterfeit Detector*. The absolute facts, as detailed by those interested in keeping the record of counterfeits, appear monstrous and fabulous even beyond credence. Of the various kinds it is estimated that there are about six thousand. Of the various species of 'counterfeits,' as they are called, it is ascertained that but a small part of those in circulation is composed of bona fide imitations of the genuine notes. Those known as alterations number highest. One cause of this multiplicity of altered notes is attributable to the similarity of titles among banks in different sections of the country. As, for instance, we find 27 Union banks, of which 7 are in the State of New York. A yet further aid to 'alterations' is in the frequent use of the same devices on notes of different banks, and often of different banks of the same name."

Although the picture is drawn at a later date than that which we are at present considering, nevertheless it is equally true for the year 1861, and must be accepted as such.

A writer in the *Bankers' Magazine*, in November, 1862, stated that experienced New York bankers and a former bank-note engraver were unable to detect certain fraudulent notes. His conclusion was: "If experts such as bank tellers and bank-note engravers are so readily deceived by well-executed fraudulent bills, it cannot be expected that merchants, traders, and others will be prepared to detect such frauds."

127. THE PROTEST AGAINST NATIONAL BANK ISSUES[1]

By HORACE BOIES

"Whom the gods would destroy they first make mad."

The currency of a country is the lifeblood of its business interests.

Taint it in a single artery or a lesser vein and the whole system is diseased.

Our national banking system was the offspring of a naked treasury and overwhelming debt.

Through all the years of its existence it has been nursed and fondled by indulgent representatives of a great republic.

It was conceived in one of the darkest hours of the nation's financial history, the child of an overpowering necessity that could stop at nothing but some form of national relief.

In its swaddling clothes it was a meek and pleading thing, grateful for any crumbs that fell from its master's table. Today it is the autocrat of all the states. It no longer stands at the doors of Congress asking alms at its hands.

It comes as a victor now, with all its plans matured, its measures formulated by a little coterie of men within its folds, dictates such changes in the nation's laws as its own selfish interests require, and a fawning majority of a committee in Congress, to which its measures are referred, hasten to obey its will.

By the original act authorizing the incorporation of national banks each of these institutions was required to purchase and deposit with the Secretary of the Treasury, to be held by the government as security for the payment of its outstanding notes, United States bonds. These bonds were interest-bearing obligations of the government, the interest on which was paid to the banks the same as it was paid to other holders of like securities.

Upon such deposit the bank was authorized to issue and put in circulation as money its own notes up to 90 per cent of the face value of the bonds deposited.

To secure the prompt redemption of its notes on demand each bank was also required to keep on hand a reserve *in lawful money* of the United States equal to 25 per cent of its own outstanding notes.

The effect of these provisions was to enable a private corporation to coin the credit of the nation into something that, for every practical

[1] Adapted from "Why Not Government Currency?" *Moody's Magazine*, III (1906–7), 299–300.

use of its own, was money at the ratio of $4 for every $1 of its own money it was required to lock up in its own vaults.

The same provisions authorized the bank to receive the money of others, invest it as its officers saw fit, subject only to the requirement that it should keep on hand in its own vaults 25 per cent of these deposits, in *lawful money*, with which to meet demands of depositors for their money as the same were made.

They accomplished this further end. They withdrew from circulation the legal tender money of the country equal to 25 per cent of the outstanding bills of all the national banks of the country thereafter to be organized, and 25 per cent also of all deposits in all of these banks, and left the enormous vacuum occasioned by such withdrawals to be filled by the notes of these banks, and in no other possible way. On the 24th of September last, as shown by the report of the Comptroller of the Currency, the aggregate of these deposits was almost five billions of dollars, requiring a withdrawal from circulation of the legal tender money of the country of nearly $1,250,000,000.

But, liberal as these provisions were, they did not satisfy these corporations. They first asked and obtained from Congress leave to invest their own notes up to the face value of the bonds they had deposited, and they then asked and obtained leave to withdraw their reserve of 25 per cent of their outstanding notes that they might utilize the same to the best advantage possible, instead of having it tied up in their own vaults.

When they had accomplished this they had not a dollar invested in their business that was not interest-bearing, payable to themselves, and they had appropriated sufficient of the nation's credit to enable them to issue and put in circulation, as money, a sum of their own notes equal to the entire face value of the bonds they had deposited, upon which bonds they were annually collecting interest from the government.

They had also made the national bank note credit money only, as pure and simple as ever the old discarded greenback was such money, for all they had added as security to the greenback of old was the individual credit of the private corporation that issued the notes.

How little this amounted to in a practical way is evidenced by the well-known fact that no man, wherever located, stops for an instant to inquire by what corporation a national bank note offered him is issued. It is sufficient for all to know that behind each of these notes, wherever or by whomsoever issued, stands the credit of this

great nation, pledged for its redemption if the bank issuing it fails to redeem it.

128. DOUBLE PROFIT ON BANK-NOTE ISSUES[1]

By R. W. JONES

The government bonds upon which the bank notes are issued are safely deposited in the United States Treasury. The bankers draw coin interest on these bonds from the Government and pay no taxes upon them. The Government allows them to issue about 90 per cent of the amount of their bonds in notes, thus without any cost to the banks except the tax on their issues increasing their interest-bearing capital 90 per cent. In other words, upon a capital of $100,000,000 they can reap profits from $190,000,000. They lend at from 8 to 12 per cent interest. The people pay them on their bonds from 5 to 6 per cent interest. Thus the people pay from 13 to 18 per cent interest to the national banks on every dollar of "Blackbacks" in circulation. Besides this the Government coins and issues to the banks their notes free of charge. The Government must also settle up the business of every broken bank. This is a useless and extravagant system, calculated to concentrate wealth and rapidly enrich the money power of the country at the expense and by the oppression of the people.

129. ANALYSIS OF PROFIT ON BANK-NOTE CIRCULATION[2]

It has been assumed by those not fully informed on the subject that the issue of national bank circulation is attended by a large profit; that is, that the banks receive the fixed interest on the bonds deposited as security for circulation and current rates of interest on the total amount of notes received, making their net profit the sum of these two returns. The fact, however, that the volume of circulation outstanding is approximately only 70 per cent of the maximum issuable—that is, an amount equal to the paid-in capital stock of the banks—is evidence that the circulation franchise is not as profitable as would appear.

Below is given a computation made by the Actuary of the Treasury Department of the profit on circulation, based upon the deposit of $100,000 of the various classes of bonds available at the average net

[1] Adapted from *Money is Power*, pp. 44–45. (Davis & Freegard, 1878.)

[2] Adapted from *Report of Comptroller of the Currency*, 1911, p. 12.

price. By reference to this table it will be noted that money is assumed to be worth 6 per cent. From the gross receipts, that is, interest on the bonds, and the interest on $100,000 circulation loaned, at 6 per cent, deductions are made for the tax on circulation, expenses incident to redemptions, shipments of currency, etc., and the sinking fund, to show the net receipts. The actuary then computes the interest on the cost of the bonds at 6 per cent, the difference between this amount and the net receipts being the net profit to the bank.

Two per cent consols of 1930 were at the highest average net price in March last, and as a result the profit on circulation was at the lowest point, namely, 1.296 per cent. These bonds were at the lowest point in July, namely, 100.250, when the profit on circulation is shown to have been 1.412. The highest-priced Government issues are the 4 per cent bonds of 1925, and were held at 116.86 in January last, when the profit on circulation was 0.986 per cent. At the market price of 114.134, in August last, the profit on circulation was at its maximum, namely, 1.226 per cent. The Panama Canal bonds of 1916 sold, on an average, in August last, at 100.303, when the profit on circulation was 1.410 per cent. The highest average price during the year for these bonds was 101.250, in April last, and the percentage of profit on circulation 1.325.

CONSOLS OF 1930. JANUARY, 1911

Cost of bonds		$101,125.00
Circulation obtainable		100,000.00
Receipts		
Interest on bonds	$2,000	
Interest on circulating notes	6,000	
Gross receipts	$8,000.00	
Deductions		
Tax	$ 500.00	
Expenses	62.50	
Sinking fund	32.00	
Total	$594. 50	
Net receipts		7,540.50
Interest on cost of bonds at 6 per cent		6,067.5c
Profit on circulation in excess of 6 per cent		$1,338.00
Percentage excess profit		1.388

VII

THE FEDERAL RESERVE SYSTEM

Introduction

The Federal Reserve System in which our national banks are now organized was inaugurated by the Federal Reserve Act of December 23, 1913. For fifty years our banks had been operating under the national banking law that had been passed during the Civil War. This act gave us a safe and uniform bank-note currency, and in other ways it constituted so substantial an improvement over the conditions that had existed prior to the war that we were long loath to tamper with it seriously. While defects were early revealed, they appeared in the main to be of such a nature as required amendment merely, rather than thoroughgoing revision.

But the panic of 1893 revealed serious shortcomings in the national banking system. It was found that the great dearth of money that developed could not be relieved by an increase in that element of our currency system to which we must look for elasticity, namely, the bank notes, and it became necessary for the clearing-house associations, and even private businesses, to issue a wide variety of substitutes for cash. The same phenomenon had of course been manifested in 1873, but the nature of the difficulty was not so generally understood at that time. It also became apparent in 1893 that in consequence of inadequate and rapidly dissipating reserves our banks were unable to expand their loans to meet the needs of a crisis.

The result of the experience of 1893 was the advancement of the Baltimore plan of currency reform, which was modeled after the Canadian system of issuing currency protected by a joint guaranty fund to which all the banks contribute. Nothing came of the plan, however, the silver issue of the time forcing all other financial matters into the background. Again, in 1898 the Indianapolis Monetary Commission, after a thorough survey of the banking and currency problem, suggested some substantial amendments to existing currency legislation, among which was the issue of bank notes based

upon commercial paper, or asset currency. However, the Spanish-American War diverted our attention to problems of international policy, while the long period of prosperity which followed caused us in the main to forget the question of banking reform. However, the act of 1900, in providing that national banks might thereafter issue notes up to the par value[1] of bonds deposited as security, gave us a rapid expansion of bank-note currency; but it did nothing to provide the necessary elasticity.

The disastrous panic of 1907 thoroughly aroused the country to the imperative need of banking reform. It was observed that whereas other countries were equally subject to periodic fluctuations of commerce and trade the United States appeared to be the only nation in which the banking machinery was incapable of alleviating the conditions that developed in time of crisis. Strong pressure, partly political, was brought on Congress to pass some emergency legislation. After a very brief study of the problem Congress passed the Aldrich-Vreeland Act of 1908, which provided for the issue of emergency notes in time of stress through groups of banks in various communities organized into national currency associations. This currency could be based in part on commercial paper, and thus for the first time we secured legal permission for an asset currency. Moreover, good service was rendered by this act at the outbreak of the European war, just prior to the inauguration of the Federal Reserve System. The Aldrich-Vreeland law, however, was confessedly a temporary measure, its final clause authorizing the appointment of the National Monetary Commission and making appropriation for a thoroughgoing study of the entire banking problem.

The movement for banking reform then rapidly developed. The National Monetary Commission in its investigation drew upon the experience of the entire world, and a vast literature on the subject was collected and published—nearly fifty volumes in all. Meanwhile numerous independent students were analyzing the problem, with the result that the various weaknesses of the national banking system, as indicated in our previous chapter, were clearly revealed. A large number of comprehensive plans of reform were also put forward, many of them as bills in Congress, and others in the form of monographs by commercial associations and independent students of the question.

[1] To market value, only, when market value is less than par.

It remained, however, for the Aldrich bill, growing out of the work of, and indorsed by, the National Monetary Commission, to bring us to close quarters with the problem. The Aldrich plan, which was presented to Congress early in 1911, was discussed the country over perhaps more thoroughly than any other measure ever before Congress. The bill is generally conceded to have had many excellent provisions; many of them, indeed, subsequently became embodied in the Federal Reserve Act. But the prevalent distrust of Mr. Aldrich in consequence of his unsavory reputation on tariff matters, together with the fact that his proposal was undoubtedly a very strongly centralizing measure, made its enactment into law a political impossibility, especially after the coming of the Democrats to power in 1912.

The Federal Reserve Act is an outgrowth of the Aldrich plan, though modified in numerous details and in some very important respects. Passed with unusual expedition by a newly organized and inexperienced Congress, the measure was very generally distrusted by the financial interests of the country while it was pending. It was held by many, indeed, that it would wreck the national banking system, if not the country itself. After the passage of the act, however, as soon as time had permitted a study of the provisions of the law, it became apparent that an extraordinary piece of legislation had been enacted; and practically all parties promptly rallied to its support. The act now appears to be one of the wonders of American legislation; it seems almost inconceivable that a measure containing so much of solid achievement and so little of weakness could have come out of Washington. It is important to reflect, however, that the fundamental principles underlying the new system were developed out of the innumerable discussions of the subject that had been taking place for years. It nevertheless remains a remarkable coincidence that the principles thus scientifically developed should have been in so admirable a manner incorporated into law.

The new system has now been in operation for nearly two years, and it appears to have justified the confidence that has been reposed in it. It will of course require many years to test the measure fully; but already the business of the country is being adjusted to the changed conditions. Whether the act permanently accomplishes all that its supporters hope, it is already clear that we shall never go back to the old order, and that the inauguration of the Federal Reserve System marked the beginning of a new era in American banking.

A. General Description of the System

130. THE CREATION OF THE FEDERAL RESERVE SYSTEM[1]

By C. W. BARRON

Next to the Declaration of Independence and the Constitution of the United States the Federal Reserve Act, signed by President Wilson December 23, 1913, may be the most important measure ever placed before the people of these United States. Upon its wise administration depends the good or ill of a hundred million people, and as a nation we shall probably live under it, not only for the twenty years named in the act, but, with amendments found necessary from time to time, for possibly many generations.

The miraculous thing about its creation is that it sprang forth in a few hours before the Christmas holidays from a new Congress that understood little of currency and less of banking and an Executive and a Cabinet that never made any pretense to a clear understanding of financial principles. Yet a Congress of financial experts, with an Administration and a Cabinet composed of the leading bankers of the country, probably could not have produced so good a bill. Bankers are not generally progressive or even open-minded. The line of safety must be their rule of procedure, and all changes they naturally regard with suspicion.

Congress, having no fixed principles, was subject to no prejudices, and the bankers, who could never be induced to formulate a bill, unconsciously made one by their negations.

This bill is the re-formation of an absolutely unworkable and chaotic measure passed by the House. It was forced into shape by pressure from the Administration to do something promptly, as the nether millstone, and the determination of the banking interests to quit the national banking system, should the act give evidence of being for them dangerous as the upper millstone.

Yet the bill in its broad principles is the result of expert currency and banking agitation that has been going on for well-nigh a generation, even before the necessity for currency legislation was emphasized by the 1907 panic.

The bill as it passed the House was so highly dangerous as to be undesirable. Had not the financial papers refrained from criticism a panic might easily have ensued. Had the House bill passed the

[1] Adapted from *The Federal Reserve Act*, pp. 7–9. (Boston News Bureau Co., 1914.)

Senate and been signed by the President, it might have disrupted the national banking system and caused the sudden retirement of $700,000,000 of national bank currency.

The country has never been informed of the quiet currents of expression that went on last autumn between leading banking interests. The sentiment of the national bankers crystallized in a quiet but unaccorded determination to make no acceptance of the House bill and to avoid the creation of any panic by simply sitting still and leaving it to the Administration, if it so elected, to enforce the act and put the national banks out of existence through receiverships. In other words, the banks would not themselves take the responsibility of a foreclosure upon the national banking system, with a contraction of $700,000,000 in the currency afloat, which meant the sudden retirement of 40 per cent of the money in the hands of the people.

This was the quiet sentiment of the national bank interests of the country as understood and privately, yet individually, formulated at the American Bankers' Association Convention in Boston in October.

While the bill was under discussion in the Senate it was changed so rapidly that the financial world, except for a few leading experts, lost personal interest in it, and refused to follow the matter in the news of the day. But now that financiers have had time to read the full text of the conference bill, as signed by the President, it is not saying too much to declare that they are astonished at its breadth and character, the evident sincerity of its purpose, and its freedom from bias, prejudice, or experimental notion.

Singular as it may appear, the force, breadth, and character of this bill are really due to the pressure put on Congress to produce a bill before the Christmas holidays. At the last moments of the session the several points in dispute were compromised by throwing them upon the new Federal Reserve Board, yet to be appointed, just where the power should be lodged.

In fact, the new banking bill puts in the hands of the Secretary of the Treasury and the Federal Reserve Board the construction, regulation, and government of a reserve banking system to be built out of the reserves of the national banks, gradually removed from the reserve and central reserve cities, and gradually mingled with the moneys of the United States Treasury. These moneys, with the capital subscribed by the national or "member" banks, constitute a basis for the rediscount of commercial paper from the member banks and the issuance in this connection of a new national currency supplementing

the present currency, yet protected by a 40 per cent gold reserve obtained from the banks and the Treasury; the whole system to be knit together at home and expanded abroad, with power in the Federal Board to expand or contract at will, to officer and manage and regulate and name the discount rates for the federal reserve banks with possibly more money in their pockets than may be then held by the banks now constituting the national banking system.

131. THE UNDERLYING PURPOSE OF THE ACT[1]

By C. W. BARRON

The "motif" underlying the Federal Reserve Act is not that "which is nominated in the bond." "An elastic currency" could have been had by an enactment of twenty lines. The "means of rediscounting commercial paper" are already at hand and such discounts exist to the extent of at least 100 millions in the national banking system. It is not "to establish a more effective supervision of banking in the United States," for that could be accomplished by increasing the appropriation and enlarging the salaries of the examiners, so that men with larger experience and breadth of vision would perform more effective supervision.

The purpose of the act most largely in its inception was "for other purposes," and these "purposes" can never be wisely or effectively carried out; if persisted in they spell disaster to the country.

The hidden purpose or "motif" which inaugurated this legislation, however in effect it may work out under wise administration, is to cheapen money.

The whole primary discussion of this bank act was to make money easier, to cheapen it to the farmer and producer and manufacturer and merchant. Senators and representatives both proclaimed within and without Washington that what they were seeking was a financial system that would give us an average rate approaching that of the Bank of France, where interest over a series of years averages between 3 and 4 per cent. They frankly said they hoped for something under the 4 per cent rate.

The charge was that the centralization of reserves in New York or Wall Street made money for bankers in that "den of iniquity," taxed the country with irregular and high rates of interest, and repressed commerce, investment, and prosperity.

[1] Adapted from *The Federal Reserve Act*, pp. 10–11, 38. (Boston News Bureau Co., 1914.)

Therefore the proposal in outline was that New York should be financially carved up; that the reserves of the national banks now centralized in New York should be taken away and between three and four hundred millions of the bank reserves which are now deposited in that center by the 7,500 national banks over the country should be removed to other centers of commerce and industry; and thereupon should be built an elastic banking and currency system, each center serving its own local community, but all interknit, each with the other, for mutual support.

The old system produced concentration of bank reserves in New York City, which Congress desired to decentralize. Wall Street was not responsible for this centralization of banking power; the banks of the country and the national bank act were responsible. The New York banks never originated, but, of course, made money out of it. It has been figured that they made one-third of 1 per cent per annum upon these deposits, but this was not their great profit. The profit came to the financial powers in New York who knew the ebb and flow of currency, spring and fall, and changed their investments as betwixt money, bonds, or stock according to the money currents. New York, as a recipient holder of fluctuating bank reserves, was the seat of financial power, and had control of rates and the distribution of credit according as money flowed in or out. When money flowed in after the country's planting or harvesting, New York bankers said who should have it, and upon what merchandise and what stocks and bonds it should be loaned.

The Federal Reserve Act is an act of decentralization. It seeks the establishment of other financial centers co-ordinated through a Federal Reserve Board at Washington. Finance and banks are for the people and human development. The people do not exist for the banks or for potential and highly centralized finance.

A new age is upon us. It is the universal age; it is the age of humanity; it is the age of decentralization of old powers that the individual unit of humanity may enter in.

132. A GENERAL VIEW OF THE FEDERAL RESERVE SYSTEM[1]

BY CHARLES S. HAMLIN

The Federal Reserve Act, in the first place, provides for a division of the United States into 12 districts, each district containing approximately from 500 to 700 national banks. The national banks in each

[1] Adapted from *Federal Reserve Bulletin*, July, 1915, pp. 139–40.

district unite in forming a new bank called the Federal reserve bank, to which each national bank contributes 6 per cent of its paid-up capital stock and surplus to provide the necessary capital.

The individual capital of these 12 Federal reserve banks varies, respectively, from a little under 5 millions to a little over 20 millions of dollars. The total capital of the 12 banks (not counting State institutions which may ultimately become members) is a little over 100 millions of dollars.

In addition to the capital payments that must be made, each national member bank is obliged to pay to its Federal reserve bank a certain portion of its legal reserve, which portion, however, it still counts as part of its reserve. These payments of reserve are spread over a period of three years, and the total payments will amount to over one-third of the total reserves held by the national member banks.

In addition, the Secretary of the Treasury may deposit the general funds of the Treasury—excepting only certain trust funds—with the Federal reserve banks, and disbursements of the government may be made by checks drawn against such deposits.

The national banks in the 12 respective districts (and State banks which may join the system later) are the only stockholders of the Federal reserve banks, and their stock cannot be transferred or hypothecated. The stock is entitled to a 6 per cent annual cumulative dividend, and one-half the net earnings of the Federal reserve banks may be paid into a surplus fund until it amounts to 40 per cent of the paid-up capital stock.

All net earnings over and above this dividend and surplus are paid to the United States as a franchise tax.

Each Federal reserve bank is managed by a board of directors, consisting of nine members, of which three are appointed by the Federal Reserve Board and six are elected by the member banks, three of the six directors representing the banks and three consisting of members who at the time of their election were actively engaged in commerce, agriculture, or some other industrial pursuit.

These 12 Federal reserve banks are under the control and direction of the Federal Reserve Board, consisting of the Secretary of the Treasury and the Comptroller of the Currency, *ex officio*, and of five other members appointed by the President and confirmed by the Senate.

The Federal Reserve Board sits in Washington, D.C. It appoints, as I before said, three directors on the board of each Federal reserve

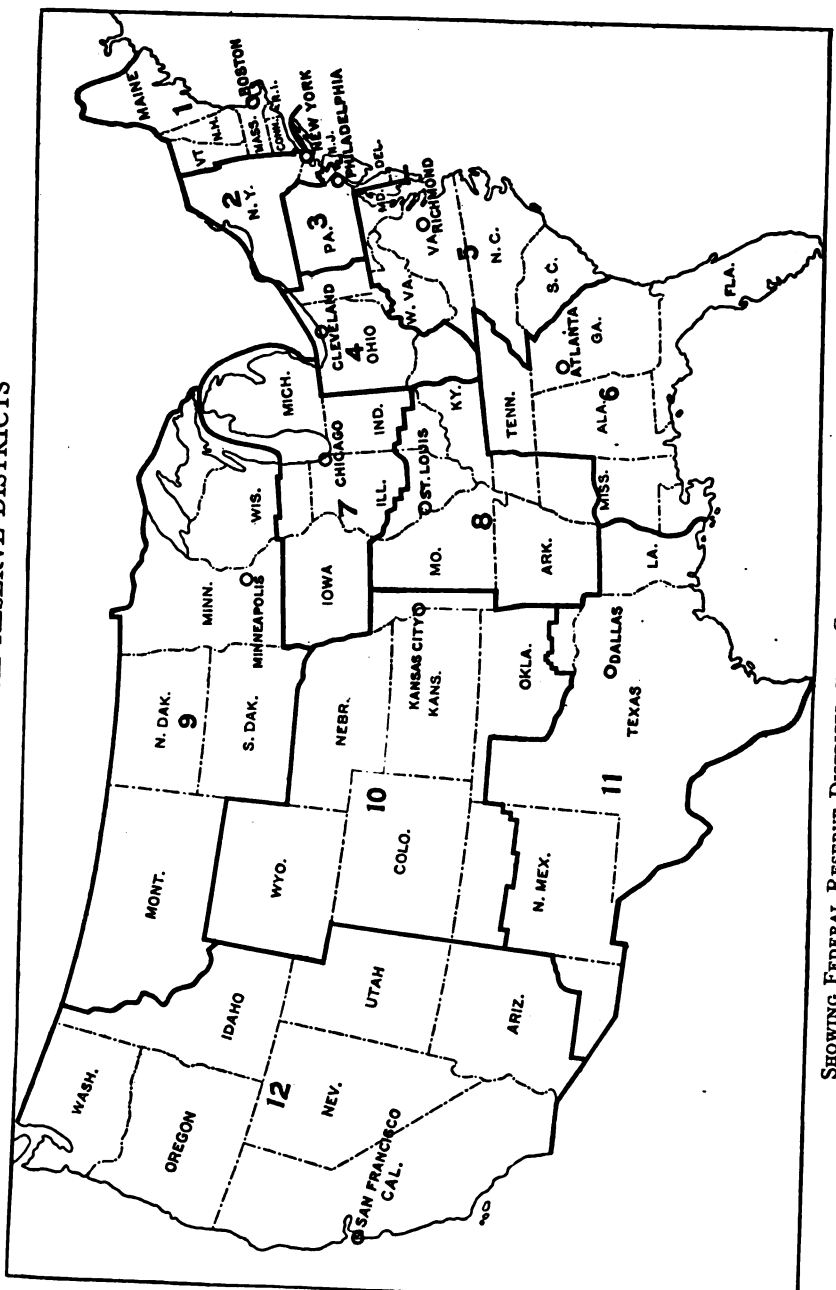
bank; it has general powers of supervision and examination of the Federal reserve banks and the member banks; it may suspend or remove, for cause, any director or officer of the Federal reserve banks; it may suspend the operation of any Federal reserve bank and liquidate or reorganize such bank; it defines the paper which may be rediscounted by Federal reserve banks; it has power to review and determine the rates of discount established from time to time by the Federal reserve banks for the discount of commercial paper offered by the member banks; it regulates the open-market powers of the Federal reserve banks; it has power to suspend every reserve requirement of the act if it deems such course necessary; and it has many other specific powers which I need not mention here.[1]

Each Federal reserve bank is independent of every other. They are empowered, however, with the permission of the Federal Reserve Board, and at rates fixed by the board, to rediscount the discounted paper of any of the other Federal reserve banks, and can be required to do so by the affirmative vote of at least five members of the Federal Reserve Board.

The act also creates a body known as the Federal Advisory Council, one member of which is elected by each Federal reserve bank. The duties of the council are to confer with the Federal Reserve Board and to advise it as to matters connected with discount rates, note issues, reserve conditions, open-market powers, and similar questions.

[1] In connection with this selection reference is made to selections 101 and 102.—EDITOR.

133. THE FEDERAL RESERVE DISTRICTS



SHOWING FEDERAL RESERVE DISTRICTS, WITH CHANGES BY FEDERAL RESERVE BOARD

134. COMPARATIVE DATA ON DISTRICTS[1]

Dist.	Location of Reserve Banks	Capital (Authorized)	Area in Square Miles	Population	No. Member Banks	Territory Covered
1	Boston.....	$ 9,711,900	66,465	6,557,841	441	Me., N.H., Vt., Mass., R.I., Conn.
2	New York.....	19,931,700	49,170	9,113,279	480	New York State
3	Philadelphia.....	12,501,500	39,865	8,110,217	758	N.J., Del., eastern Pa.
4	Cleveland.....	12,101,700	183,995	7,961,022	764	Ohio, western Pa., northwestern W.Va., eastern Ky.
5	Richmond.....	6,387,400	173,818	8,519,313	496	D.C., Md., Va., N.C., S.C., remainder W.Va.
6	Atlanta.....	4,670,600	233,860	6,695,341	381	Ala., Ga., Fla., eastern Tenn., southern Miss., southeastern La.
7	Chicago.....	12,687,700	176,940	12,630,383	971	Ia., southern Wis., Mich. (except peninsula), northern Ill., northern Ind.
8	St. Louis.....	4,987,500	146,474	6,726,611	459	Ark., all Mo. (except extreme west), southern Ill., southern Ind., western Ky., western Tenn., northern Miss.
9	Minneapolis.....	4,811,000	437,930	5,724,895	709	Mont., N.D., S.D., Minn., northern Wis., Mich., peninsula.
10	Kansas City.....	5,530,300	509,649	6,306,850	837	Kans., Nebr., Colo., Wyo., extreme western Mo., northern Okla., extreme northern N.M.
11	Dallas.....	5,698,900	404,826	5,310,561	754	Tex., remainder N.M., southern Okla., remainder La., southeastern Ariz.
12	San Francisco.....	7,775,400	693,658	5,389,303	521	Cal., Wash., Ore., Idaho, Nev., Utah, remainder Ariz.
	Totals.....	$106,795,600	3,116,650	89,045,616	7,571	

[1] *Journal of Political Economy*, XXII (1914), p. 1008.

135. SUPERIORITY OF DISTRICT OVER CENTRAL BANK PLAN[1]

By J. LAURENCE LAUGHLIN

The legislative struggle over the bill gathered mainly about the question of central control. On the one hand, owing to a current belief that a control over credits was possessed by the larger banks of New York City, there were many who regarded government control of banking credits as the only means for securing equality of treatment. This attitude was a part of the present-day tendency to press for increasing governmental interference with trade and industry. While there was opposition to a central bank of private capital and of private management, there was more or less support for a central bank owned and controlled by the government. Thus, although there was a well-preserved tradition in the Democratic ranks (based on ignorance of the real services of the Second United States Bank, and which did them little credit) against a central bank, and although Democrats were supposed to dislike a centralization of political power, yet the opposition to the plan of the National Monetary Commission was clearly due, not so much to fear of a central bank, as to the fear of a privately capitalized central institution which might be controlled by the "interests."

On the other hand, sensible men of all parties realized that it would be impracticable to allow government officials, often political appointees, to do the actual work of technical banking, to grant loans, to manage resources and investments—in short, to introduce the government into the banking business. Political control was obviously as dangerous as private financial control; and it would have been destructively inefficient.

The solution of the matter finally adopted was, interestingly enough, centralization by districts; that is, a centralization intended to prevent scattering of reserves was obtained by establishing in each district an institution itself quite similar, in powers within its jurisdiction, to the National Reserve Association of the Monetary Commission. That is, the government was saved from going into the banking business by granting local centralization with capital and management supplied by the banks, and yet federated under a common authority in order to establish governmental direction and unity of purpose. In its essence this plan retained the workings of local

[1] Adapted from "The Banking and Currency Act of 1913", *Journal of Political Economy*, XXII (1914), 310–12.

self-government, together with the operation of technical banking by those who supplied the capital, under general direction. This final adjustment which secured safe and efficient methods, as contrasted with the chaotic proposals which might have been adopted, will be a cause of permanent congratulation.

It is to be observed, moreover, that the solution adapted to our conditions, in which a widely scattered system of individual banks had to be retained, must be original with us. In no other country were the conditions the same. The relation of a Central Bank in European states to other banks was not one based on the existence of a system of individualistic and numerous banks carrying on independent operations. Therefore, while retaining self-management of privately owned banks, co-operation was obtained by Reserve Banks in local districts under management by bankers, while country-wide and uniform action was gained by governmental direction through a Federal Reserve Board.

The difficulty of sectional differences of interest working against each other would, nevertheless, have to be met in the practical workings of any plan. If there had been one central institution, pressure would have been brought upon the central management to help out one section of the country at the expense of another. Under a system of regional banks each section gets the support of its own resources first of all, an arrangement by which sectional antagonism is reduced to the minimum. In addition, when one section is in trouble beyond its own powers of recovery, then by aid of the Reserve Board one Reserve Bank may come to the aid of another. Such a practice, it is to be noted, has been going on in an extra-legal way in previous years whenever banks of a large center have sought assistance from New York. Such a practice was natural and inevitable. In the new law such practice is openly recognized and legalized.

136. REASONS FOR CHOICE OF DISTRICTS[1]

The Organization Committee has issued the following statement as a summary of its operations and conclusions:

The Federal Reserve Act directs the Reserve Bank Organization Committee to "designate not less than eight nor more than twelve cities to be known as Federal Reserve cities," to "divide the continental United States, excluding Alaska, into districts, each district to contain only one of such

[1] Issued April 2, 1914. Taken from Monthly Letter of National City Bank, New York, April, 1914.

Federal Reserve cities," and to apportion the districts "with due regard to the convenience and customary course of business." The Act provides that the districts may not necessarily be coterminus with any State or States.

In determining the Reserve districts and in designating the cities within such districts where Federal Reserve Banks shall be severally located, the Organization Committee has given full consideration to the important factors bearing upon the subject. The Committee held public hearings in eighteen of the leading cities from the Atlantic to the Pacific and from the Great Lakes to the Gulf, and was materially assisted thereby in determining the districts and the reserve cities.

Every reasonable opportunity has been afforded applicant cities to furnish evidence to support their claims as locations for Federal Reserve Banks.

More than 200 cities, through their Clearing-House Associations, Chambers of Commerce, and other representatives, were heard. Of these, 37 cities asked to be designated as the headquarters of a Federal Reserve Bank.

The majority of the Organization Committee, including its Chairman and the Secretary of Agriculture, were present at all hearings, and stenographic reports of the proceedings were made for more deliberate consideration. Independent investigations were, in addition, made through the Treasury Department, and the preference of each bank as to the location of the Federal Reserve Bank with which it desired to be connected was ascertained by an independent card ballot addressed to each of the 7,475 National Banks throughout the country which had formally assented to the provisions of the Federal Reserve Act.

Among the many factors which governed the Committee in determining the respective districts and the selection of the cities which have been chosen were:

First.—The ability of the member banks within the district to provide the minimum capital of $4,000,000 required for the Federal Reserve Bank, on the basis of 6 per cent of the capital stock and surplus of member banks within the district.

Second.—The mercantile, industrial, and financial connections existing in each district and the relations between the various portions of the district and the city selected for the location of the Federal Reserve Bank.

Third.—The probable ability of the Federal Reserve Bank in each district, after organization and after the provisions of the Federal Reserve Act shall have gone into effect, to meet the legitimate demands of business, whether normal or abnormal, in accordance with the spriit and provisions of the Federal Reserve Act.

Fourth.—The fair and equitable division of the available capital for the Federal Reserve Banks among the districts created.

Fifth.—The general geographical situation of the district; transportation lines and the facilities for speedy communication between the Federal Reserve Bank and all portions of the district.

Sixth.—The population, area, and prevalent business activities of the district, whether agricultural, manufacturing, mining, or commercial, its record of growth and development in the past, and its prospects for the future.

In determining the several districts, the Committee has endeavored to follow state lines as closely as practicable, and wherever it has been found necessary to deviate, the division has been along lines which are believed to be most convenient and advantageous for the district affected.

137. CRITICISM OF THE DISTRICTS CHOSEN[1]

The plan of division indicated by the committee has already received very severe criticism, this criticism being particularly addressed to the following points:

1. The establishment of the maximum number of 12 districts, notwithstanding that the advice of a large number of bankers and business men had been in favor of the limitation of the number to the minimum required by law.

2. The failure to create a single large overshadowing bank with a capital of not less than $25,000,000 to $30,000,000, such a bank having been strongly recommended on the ground that an institution of such a size was necessary to control foreign exchange operations and to direct the course of trade and monetary operations between the United States and foreign countries.

3. The placing of too many districts on the Atlantic Coast while the West was left relatively unsupplied with districts and banks.

4. The faulty division of the country between the several districts in certain particulars. Among these particulars are expressly mentioned (*a*) the selection of boundary lines that would include larger and richer centers as tributary to smaller and weaker points at which reserve banks were situated, (*b*) the artificial separation of certain portions naturally tributary to a given city and their inclusion in a region assigned to another city, (*c*) the erroneous assignment of certain regions to cities with which they have comparatively poor or slow transportation connections.

[1] Adapted from "Washington Notes" in *Journal of Political Economy*, XXII (1914), 484–87.

These objections, as thus classified, practically summarize the whole case against the plan of districting, but there is a distinct difference in the weight to be given to the various criticisms. As to whether the maximum or minimum number of districts should have been created, decided difference of opinion undoubtedly exists in responsible circles, not a few persons taking the view that if possible the 12 districts should have been mapped out, assuming, of course, that each could be assigned a capital adequate to the creation of a reasonably strong bank in the district under consideration. This point may be regarded therefore as essentially a question of difference in theory or of attitude toward the banking organization question in general.

In the same way the failure or refusal to create a single bank of predominant capital is not considered as affording ground for the pessimistic criticisms that are voiced in some quarters. The New York reserve bank actually provided for will have a much larger capital than any other institution in the system, and, while its capital is materially smaller than the combined capital and surplus of several of the other institutions located in the city of New York, this fact is not regarded as necessarily indicating anything very definite with reference to the effectiveness of the proposed plan. As a matter of fact, the Bank of England is considerably below several other institutions in London, so far as relates to aggregate resources. This does not prevent the Bank of England from exercising a predominant control over the prevailing rate of discount. A similar condition exists in some of the Continental countries. It is believed, therefore, that the size allowed to the New York institution is amply sufficient to permit the establishment of an effective bank. Moreover, too little weight appears to have been allowed in current discussion to the fact that the Federal Reserve Board will exercise a powerful central control over the whole system and will undoubtedly succeed in uniting the different institutions in a single and well-considered national policy.

A different point of view is evidently entertained by careful thinkers with respect to the actual districting. The third point, already mentioned above, that too many districts have been placed on the Atlantic Coast while the West is left relatively unsupplied is regarded as having very considerable force. As things stand, the Atlantic Coast districts are represented by the cities of Boston, New York, Philadelphia, Richmond, and Atlanta. This is considered clearly one too many, the unnecessary city and district being Rich-

mond. By leaving out the Richmond district a much-needed district which could have been used elsewhere would have been saved with positive benefit to the other districts on the Atlantic Coast, which are now too thickly packed together to admit of a healthy growth. The belief prevailing in sound quarters is that the Atlanta district with its very limited capital would have been better off had not the states of North and South Carolina, which properly belong to it, been pared away in order to provide a southern extension for the Richmond district. In the same way, the northward extension of the Richmond district tended to force the northern boundary of the Philadelphia district to the shores of New York harbor, thereby depriving New York City of a portion of its natural territory, the northern rim of New Jersey, while in like manner the rearrangement of boundaries necessitated by the insertion of the Richmond district tended to prevent the inclusion of western Connecticut with New York, and to force other adjustments generally believed to be out of harmony with the "convenience and customary course of business."

In a somewhat similar fashion the fourth criticism already mentioned is finding support among informed students of banking. This criticism closely follows that which has been last considered. By making Baltimore, for example, tributary to Richmond, and New Orleans to Atlanta, an injury was done not only to local pride but also to the convenient and customary development of trade relations. The work done in this regard seems to make it unavoidable that there should be a considerable reversal of the current of business in a number of districts, the clearing of checks and the obtaining of rediscounts being carried on at points where under other conditions they would never have been placed. Undoubtedly this kind of change will cause some friction, but there seems to be little doubt that the amount of it has been considerably exaggerated. Those who are disposed to place too much stress upon the effect of the districting overlook the fact that the new system is simply superadded to existing banking arrangements and that it in no way interferes with them. Even the redistribution of reserves does not affect them, since the gross amount of required reserve is so reduced under the new banking act that banks which have been in the habit of keeping reserve balances with the old reserve cities could continue to do so without serious hardship under the new law, even if these balances were not counted as reserves. They would be as well off as they were before. The criticism of the districting really amounts in the last analysis to a statement that the

work has not been done as well as it might have been, and that if it had been more carefully performed the operation of the new system would have been somewhat smoother and easier to manage.

138. THE FEDERAL RESERVE BOARD[1]

By E. E. AGGER

Co-ordinating and controlling the whole system is the "Federal Reserve Board." It is made up of seven members. The Secretary of the Treasury and the Comptroller of the Currency are members *ex officio*. Five members are appointed by the President by and with the advice and consent of the Senate. Not more than one member of the board can come from a single reserve district. At least two of the presidential appointees must have had banking or financial experience, but no member of the board may be an officer, director, or stockholder of any bank. Except for the *ex-officio* members, and for the first incumbents, whose terms will run respectively, two, four, six, eight, and ten years, the term of office will be ten years. But the President may remove members for cause. While the Secretary of the Treasury is the *ex-officio* chairman of the board, the President is empowered to name one of his five appointees as "governor." The governor and vice-governor are the chief executive officers of the whole system.

The Federal Reserve Board is an unusually powerful supervisory and regulating body. It may suspend or remove any officer or director of a federal reserve bank; it may require the writing off by such bank of its bad debts, and may suspend a federal reserve bank or take it over for purposes of reorganization or liquidation. It may also readjust or abolish altogether the classification of central reserve and reserve cities.

The member banks are represented in the central management by a "Federal Advisory Council," made up of one representative from each federal reserve district, chosen by the board of directors of the federal reserve bank. This council meets quarterly at Washington and at such other times and places as it may choose. While patterned after the stockholders' committee of the Reichsbank, it is even less powerful than the German prototype. It may merely call for information from, and advise with, the Federal Reserve Board.[2]

[1] Adapted from "The Federal Reserve System," *Political Science Quarterly*, XXIX (1914), 269–70.

[2] Compare with selection No. 132.—EDITOR.

139. FUNCTIONS OF THE RESERVE BANKS[1]

The question naturally suggests itself and must be frankly faced: What is the proper place and function of the Federal Reserve Banks in our banking and credit system? On the one hand it is represented that they are merely emergency banks to be resorted to for assistance only in time of abnormal stress, while on the other it is claimed that they are in essence simply additional banks which should compete with the member banks, especially with those of the greatest power. The function of a reserve bank is not to be identified with either of these extremes, although occasions may arise when either of such courses may be imperative. Its duty plainly is not to await emergencies but, by anticipation, to do what it can to prevent them. So also if, at any time, commerce, industry, or agriculture is, in the opinion of the Federal Reserve Board, burdened unduly with excessive interest charges, it will be the clear and imperative duty of the Reserve Board, acting through the discount-rate and open-market powers, to secure a wider diffusion of credit facilities at reasonable rates. The Federal Reserve Banks are the holders of a large part of the banking reserves of the nation, the foundation of its banking structure. Nothing should be permitted in the operation of the Reserve Banks which would weaken this foundation. The resources of a Reserve Bank, to be useful for its peculiar purposes, should always be readily *available*. It follows, therefore, that they should be mainly invested in such short-term liquid investments as can be easily converted into cash as occasion may require. This conception of a Reserve Bank, moreover, implies that its investments should be marshaled in a steady succession of maturities, so that it may at all times as nearly as possible prove equal to the situation.

The ready availability of its resources is of supreme importance in the conduct of a Reserve Bank. Only then can it become a safe and at the same time flexible instrument of guidance and control, a regulator of interest rates and conditions. Only then will it constantly carry the promise of being able to protect business against the harmful stimulus and consequences of ill-advised expansions of credit on the one hand or against the menace of unnatural restrictions and unnecessary contractions on the other, with exorbitant rates of interest and artificial stringencies. It should at all times be a steadying influence, leading when and where leadership is requisite, but never

[1] Quoted from *First Annual Report of the Federal Reserve Board*, December, 1914, pp. 17–18.

allowing itself to become an instrument for the promotion of the selfish interest of any private or sectional group, be their aims and methods open or disguised. It should never be lost to sight that the Reserve Banks are invested with much of the quality of a public trust. They were created because of the existence of certain common needs and interests, and they should be administered for the common welfare—for the good of all.

The more complete adaptation of the credit mechanism and facilities of the country to the needs of industry, commerce, and agriculture—with all their seasonal fluctuations and contingencies—should be the constant aim of a Reserve Bank's management. To provide and maintain a fluid condition of credit, such as will make of the Reserve Banks at all times and under all conditions institutions of accommodation in the larger and public sense of the term, is the first responsibility of a Reserve Bank.

It should not, however, be assumed that because a bank is a Reserve Bank its resources should be kept idle for use only in times of difficulty, or, if used at all in ordinary times, used reluctantly and sparingly. Neither should it be assumed that because a Reserve Bank is a large and powerful bank all its resources should be in use all the time or that it should enter into keen competition with member banks, distributing accommodation with a free and lavish hand in undertaking to quicken unwisely the pace of industry. Such a policy would be sure, sooner or later, to invite disaster. Time and experience will show what the seasonal variations in the credit demands and facilities in each of the Reserve Banks of the several districts will be and when and to what extent a Reserve Bank may, without violating its special function as a guardian of banking reserves, engage in banking and credit operations. The Reserve Banks have expenses to meet, and while it would be a mistake to regard them merely as profit-making concerns and to apply to them the ordinary test of business success, there is no reason why they should not earn their expenses, and a fair profit besides, without failing to exercise their proper functions and exceeding the bounds of prudence in their management. Moreover, the Reserve Banks can never become the leading and important factors in the money market which they were designed to be unless a considerable portion of their resources is regularly and constantly employed.

There will be times when the great weight of their influence and resources should be exerted to secure a freer extension of credit and

an easing of rates in order that the borrowing community shall be able to obtain accommodation at the lowest rates warranted by existing conditions and be adequately protected against exorbitant rates of interest. There will just as certainly, however, be other times when prudence and a proper regard for the common good will require that an opposite course should be pursued and accommodations curtailed. Normally, therefore, a considerable proportion of its resources should always be kept invested by a Reserve Bank in order that the release or withdrawal from active employment of its banking funds may always exercise a beneficial influence. This is merely saying that to influence the market a Reserve Bank must always be in the market, and in this sense Reserve Banks will be active banking concerns when once they have found their true position under the new banking conditions.

It would be a mistake, therefore, and a serious limitation of their usefulness to regard the Reserve Banks simply as emergency banks. Regulation in ordinary times, as well as protection in extraordinary times, may be expected to become the chief service which these institutions will perform. The Federal Reserve Board is fully alive to its opportunities and responsibilities in this respect, but it must counsel patience in awaiting the fruition of the new system. It will take time for the new banks to develop the technique of control and skill and experience in its application. The ascertainment of the correct base from which comprehensive operations should begin, the establishment of a normal level from which expansions and contractions will freely take place, will have a most important bearing upon the future development and success of the system. Impatience to show results should not be permitted to tempt those in charge of the Reserve Banks into precipitate and unwise action.

The vast and complex structure of modern banking and credit systems is one of extreme delicacy of balance and adjustment, and it must never be overlooked that it is highly sensitive to all manner of disturbances, as recent events have painfully demonstrated. The banking systems of the larger nations are closely related to one another, and financial distress or collapse at one point quickly transmits shock to all others. Safety for us in critical times will depend on the confidence our system commands, the strength of its reserves, and its power to bring them into action promptly and effectively if needed.

In dealing with new districts and entirely changed banking methods, time and experience alone can supply the data necessary for

charting the course to be pursued. This consideration, if nothing else, would suggest the greatest patience and prudence, even if the European horizon were less clouded than it is today. None the less, the Board realizes that where extraordinary conditions warrant extraordinary measures it is the foremost duty of the Board and the banks to act promptly and boldly.

140. THE DIRECTORS OF THE FEDERAL RESERVE BANKS[1]

By MILTON C. ELLIOT

The duties and responsibilities of the directors of Federal Reserve Banks will be of the same general character, with an added degree of responsibility, as the duties and responsibilities of directors of national or member banks.

Section 4 of the Federal Reserve Act provides among other things that—

> Every Federal Reserve Bank shall be conducted under the supervision and control of a board of directors.
>
> The board of directors shall perform the duties usually appertaining to the office of directors of banking associations and all such duties as are prescribed by law.
>
> Said board shall administer the affairs of said bank fairly and impartially and without discrimination in favor of or against any member bank or banks and shall, subject to the provisions of law and the orders of the Federal Reserve Board, extend to each member bank such discounts, advancements, and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks.

From this it will be observed that the Federal Reserve Banks are to exercise the functions of banks and are not merely an association of other banks.

When this section is read in connection with Section 13, relating to rediscounts and other powers of Federal Reserve Banks, and with Section 16, which provides in effect that the United States Government shall lend its credit through the issuance of Federal Reserve notes to these banks, it is apparent that the duties and obligations of the directors of Federal Reserve Banks are not honorary, but that those who undertake these important obligations are factors in a great co-ordinated system of banking.

[1] Adapted from an address before the American Bankers' Association, May, 1914. (Published in Monthly Letter of National City Bank, New York, June, 1914.)

While the management of the Federal Reserve Banks will be relieved from many of the problems and difficulties of individual banks, and will deal primarily with certain definite depositors and customers—the member banks, the responsibilities of their directors will be increased by reason of the fact that they have at stake, not only the investment of the depositors' funds, but the investment of the national credit.

In working out a system which will insure conservative business management of these banks Congress has undertaken to create a board of directors which is representative of the interests involved.

It is provided that the board of each Federal Reserve Bank shall consist of nine members; that one-third of this board, to be known as class "C" directors, shall be selected by the Federal Reserve Board, which is in effect the representative of the United States Government; that one-third shall be known as class "A" directors and shall consist of three members who shall be chosen by and be representative of the stockholding banks; and that the remaining one-third, to be known as class "B" directors, shall consist of three members who at the time of their election shall be actively engaged in their district in commerce, agriculture, or some other industrial pursuit. The make-up of this board of directors is therefore representative, first, of the United States Government, second, of the stockholding banks, and third, of the business representatives, who are in effect the creditors of that part of the public which deals with member banks.

In other words, it will be observed that class "A" consists of representatives of the banks or those who are intrusted with the funds of the business public for investment; class "B" consists of representatives of the public who are furnishing these funds, and class "C" consists of the representatives of the Government, which undertakes to supervise the proper and conservative investment of such funds.

It must be remembered, however, that while these three interests are representative, the Board when organized is a unit, and that this Board is charged with the management and control of the affairs of such bank. The grouping or classification relates only to the manner of election, and not to their status after election.

When by election by the member banks or by appointment by the Federal Reserve Board the candidates become members of the board of directors of the Federal Reserve Banks, the duties and obligations of each member are the same. It is true that the Chairman or Federal Reserve Agent and the Deputy Chairman or Deputy Federal

Reserve Agent who are members of the board occupy dual capacities, in that they are the local representatives of the Federal Reserve Board in addition to being members of the board of directors. As members, however, their duties are similar to those of class "A" and class "B" directors.

In order to insure a thoroughly representative board, Congress has provided that such boards shall not only consist of the three interests referred to, namely, the Government, the banks, and the business interests, but that in making this selection each district shall be divided into three general groups or divisions, each group to contain, as nearly as may be, one-third of the aggregate number of member banks of similar capitalization. Each one of these groups will nominate and elect one class "A" and one class "B" director, so that the directors will be selected by and be representative of not only the stockholding banks as a whole but of the several classes of banks included within each district. This does not mean that the board shall necessarily consist of officers or directors of the smallest banks as well as officers or directors of the largest, but that each class of banks shall have an opportunity to nominate and elect, together with banks of similar capitalization, either from their own or from any other group, the candidate best suited, in the opinion of such banks, to perform the important duties assigned to the directors of Federal Reserve Banks.

By the terms of the law: Group No. 1 will contain approximately one-third of the aggregate number of banks in a district and will be composed of banks of the largest capitalization. Group No. 2 will include approximately one-third of the aggregate number of banks in a district and will embrace the banks having the next largest capitalization. Group No. 3 will include approximately one-third of the aggregate number of banks in a district, being composed of those having the smallest capitalization.

B. The Practical Working of the System

141. DEFECTS TO BE REMEDIED BY THE ACT[1]

BY J. LAURENCE LAUGHLIN

The defects in our banking and currency system which were to be remedied by the new legislation may be very briefly summarized as follows: an inelastic bank-note circulation; an even more dan-

[1] Adapted from "The Banking and Currency Act of 1913," *Journal of Political Economy*, XXII (1914), 302.

gerously inelastic credit system; ineffective use of a large supply of gold; a scattering of reserves and lack of co-operative action by banks in times of stress; a rigid reserve system which induced panics; state banks and trust companies doing a commercial business but in different systems; an independent Treasury divorced from the money market which imperiled bank reserves in times of difficulty; the drift of idle funds to the call-loan market where they fed stock speculation, and the want of American banking facilities in other countries to aid our foreign trade.

142. THREE TYPES OF BANK NOTES IN THE FUTURE[1]

By THOMAS CONWAY and ERNEST M. PATTERSON

I. PARTIAL RETENTION OF PRESENT NOTES

The Federal Reserve Act does not compel the national banks to retire their circulation. They may increase it or decrease it under the old regulations and within the old limits if they see fit. Moreover, they are released by Section 17 of the act from the old requirement to purchase a stated amount of United States bonds before being authorized to commence the banking business.

Retiring the national bank notes.—The first important change is that, beginning two years after the passage of the act, that is to say, on December 23, 1915, member banks *may* retire their circulation in whole or in part, this privilege to remain open for a period of twenty years thereafter, or until December 23, 1935. Any member bank desiring to retire any or all of its circulating notes may file with the Treasurer of the United States an application to sell for its account, at par and accrued interest, its United States bonds, now held in trust at Washington against the circulation that is to be retired.

Disposition of the United States bonds.—The Treasurer shall notify the member banks of the amount of bonds sold for their account and these banks shall then assign and transfer the bonds to the reserve bank that has purchased them. The reserve bank shall then deposit lawful money with the Treasurer of the United States for the purchase of the bonds. The Treasurer shall deduct from this payment an amount sufficient to redeem the outstanding national bank notes that have in the past been secured by those bonds, and shall pay the balance, if any remains, to the member bank that formerly owned them.

[1] Adapted from *The Operation of the New Bank Act*, pp. 132–48. (J. B. Lippincott Co., 1914.)

The reserve banks are not allowed to purchase more than $25,000,000 of these bonds in any one year, and even this amount may be reduced if they choose to purchase bonds under the authorization in Section 4.[1] There were outstanding on December 26, 1913, $756,944,194 of national banks notes, against which were held $16,147,911 of lawful money, and $743,173,000 of United States bonds. If all the national banks make application regularly and the full $25,000,000 be taken over by the Federal reserve banks each year, the process will take nearly thirty years.

The act specifically limits the retirement process to a period of twenty years. Since, as we have seen, it would take nearly thirty years, at the rate of $25,000,000 a year, to retire all the outstanding notes, each bank would be left at the end of that long period with approximately one-third of its bonds still on hand. If we deduct the 3 per cent and 4 per cent United States bonds now held in trust and limit ourselves to the 2 per cent bonds, which amount to $685,996,700, the retirement of all of them would take over twenty-seven years, and at the end of twenty years the banks would be left with at least $185,996,700 unprovided for.

Whether bankers will wish to continue their issues of notes as of old is an uncertain matter. If United States bonds remain low in price their cheapness may be a temptation, as in the past. The banks may actually be encouraged to issue notes. If, however, they fear that the purchases by the new reserve banks will be insufficient to sustain the market, they may prefer to retire their issues as promptly as possible.

II. RESERVE BANK BOND-SECURED NOTES

Reserve bank notes are to be the obligation of the Federal reserve bank issuing them and "shall be in form prescribed by the Secretary of the Treasury, and to the same tenor and effect as national bank notes now provided by law. They shall be issued and redeemed under the same terms and conditions as national bank notes, except that they shall not be limited to the amount of the capital stock of the Federal reserve bank issuing them." In other words, each reserve bank may issue an amount of these notes that is limited only by the deposit of the prescribed security.

Issues of bond-secured currency of the Federal reserve banks may originate in two ways, although all of the notes will be alike in form

[1] See below.—EDITOR.

and in security. The first group will arise through the retirement of the national bank notes. The reserve banks purchasing these notes may deposit them in trust with the Treasurer of the United States, receiving from the Comptroller of the Currency an amount of circulating notes equal to the par value of the bonds so deposited. There will thus be no shrinkage in the volume of the currency, the amount of the new reserve notes being equal to the national bank notes that are retired. The net result will be to relieve the national banks of the ownership of the bonds and their liability for the notes, and to transfer both the bonds and the note liability to the reserve banks.

The second way in which the reserve bank notes may get into circulation is under the provisions of Section 4. The eighth of the powers conferred upon the reserve banks in that section stipulates that they may, "upon deposit with the Treasurer of the United States of any bonds of the United States in the manner provided by existing law relating to national banks," receive from the Comptroller of the Currency circulating notes equal in amount to the par value of the bonds so deposited. These notes are identical with the ones already described, the only difference being that in the first case the bonds are the ones that now secure the circulation of the national banks, while in the second the bonds may not have been securing national bank circulation at the time of purchase, and may have been bought from other owners than national banks.

The significance of this provision lies in the fact that it creates a market for United States bonds. This power of the reserve banks may be of value in maintaining the price of the bonds, not only to the advantage of the present holders of those bonds, but also to the advantage of the government. It is also important because, if this power is exercised, it will limit the amount of United States bonds that the reserve banks may purchase from the national banks to retire their circulation. The total amount they are permitted to purchase from both sources may not exceed $25,000,000 per annum. Most of our government bonds are in the hands of the national banks. The owners of the balance, who are the trust companies, insurance companies, and the general public, may, especially if the market declines, dispose of their holdings to the reserve banks, which will be tempted by the lower prices to make the purchases, since they may exchange them at the Treasury Department for new 3 per cent bonds. This may be done to such an extent as to lessen the rapidity with which those banks could purchase from the national banks.

Refunding the 2 per cent bonds.—If the reserve banks do not wish to keep these notes out, and wish to invest in United States securities bearing more than 2 per cent interest, they may do so through an arrangement for an exchange. "Upon application of any Federal reserve bank, approved by the Federal Reserve Board, the Secretary of the Treasury may issue in exchange for United States 2 per cent gold bonds bearing the circulation privilege, but against which no circulation is outstanding, one-year gold notes of the United States without the circulation privilege, to an amount not exceeding one-half of the 2 per cent bonds so tendered for exchange, and thirty-year 3 per cent gold bonds without the circulation privilege for the remainder of the 2 per cent bonds so tendered." The reserve bank may thus retire its note issues in the same way as the national banks do now, and then make an exchange in the manner described, getting 3 per cent securities in return for those bearing 2 per cent. The burden of the additional 1 per cent per annum interest charge will fall upon the government, an arrangement that is entirely proper, since for years it has borrowed at rates lower than are available for any other government in the world, and has done it by requiring the national banks to buy bonds as a prerequisite to securing a charter and issuing notes.

The stipulation that "not to exceed one-half of the new securities shall be one-year gold notes" opens the way for a reduction in the national debt, if receipts to the Federal government from the earnings of the reserve banks or from any other source make such a reduction possible. The reserve bank will be required, upon receipt of these notes, to agree that as they mature year after year it will purchase such an amount of new one-year 3 per cent gold notes as the Secretary of the Treasury may tender to it, not to exceed, however, the amount of such notes issued to the bank in the first instance in exchange for the 2 per cent bonds. This obligation to purchase notes shall continue for a period not to exceed thirty years. At the end of that time, if the Secretary of the Treasury and Congress do not find it possible to retire these notes some provision for refunding them can be made.

III. FEDERAL RESERVE (ASSET) NOTES

The Federal reserve notes are to be issued as follows: Any reserve bank may make application to the local Federal reserve agent (that is, the chairman of its own board of directors) for such amounts of these notes as it may require, at the same time offering, as collateral security therefor, commercial paper and bills rediscounted by it for

member banks. This security must be at least equal to the notes received. Some of these securities may from time to time be withdrawn, with the approval of the Reserve Board, if at the same time other collateral of equal amount is substituted. The Reserve Board may also at any time call for additional security. As the notes may be issued for no other purpose than in exchange for such collateral, and since this collateral is in the form of rediscounted paper, it may be said that the notes are issued only through rediscounting.

They will be in denominations of $5, $10, $20, $50, and $100. As there are no specifications as to the relative amounts of each, it is probable that the kind needed will always be furnished. All expenses incident to their issue and retirement must be met by the reserve bank receiving them, which shall also pay on them a rate of interest to be determined by the Reserve Board. Each note will bear the distinctive number of the reserve bank through which it is issued. In anticipation of demand for them a quantity are to be prepared and deposited in the Treasury or in the subtreasury or mint of the United States nearest the place of business of each reserve bank, where they shall be held subject to the order of the Comptroller of the Currency.

143. ELASTICITY OF NOTES UNDER THE NEW LAW[1]

BY FRED M. TAYLOR

I. SEASONAL ELASTICITY

First, does the Federal Reserve Act insure the expansibility needed to supply adequate funds for crop-moving? At this point it must at once be admitted that the new currency does not meet the demands of the case in quite the thoroughgoing way which earlier schemes thought to be necessary. The ideal of the earlier plans was to provide an adequate and easily utilized power of issue, located at the very place where the need for expansion is felt, i.e., in the local bank. The new law gives up this idea entirely. The local bank will not have power to issue the new currency at all. In so far as its customers are to get any benefit from that currency the benefit must come through two channels which the country bank could use in getting the needed funds, even if the currency had no expansibility, namely, (1) calling in its balances kept with banks more centrally situated, and (2) borrowing from such central banks. In other words, the new power of

[1] Adapted from "Elasticity of Note Issue under the New Law," *Journal of Political Economy*, XXII (1914), 454–60.

issue will help out in the crop-moving period merely because it will put the reserve banks in a better position to respond to the call of the country banks for the return of their own balances and for advances on discounted paper. Judged from this point of view only, the elasticity provided by the new law is doubtless adequate. If the reserve banks have not kept themselves in a position to meet the calls of their country members from money already in possession, they will surely be able to put themselves into such a position by expanding their issue of notes. In one sense, then, the new issue has adequate expansibility for ordinary needs. There still perhaps remains a doubt whether effective elasticity is after all assured, for it is not clear that the country bank which needs money for crop-moving purposes will have the wherewithal to get advances from the reserve bank—that is, that it will have paper of the proper kind and in sufficient amount for rediscount. However, it seems probable that the act as finally passed has met this need by providing that agricultural paper shall be admitted on rather more liberal terms than paper arising out of ordinary commercial or manufacturing business. If this be so, it would seem that the provisions of the new law for securing one phase of seasonal elasticity—expansibility—are fairly adequate.[1]

Passing, now, to the other side of elasticity—i.e., contractility—can we say as much? Will the new issues promptly retire when their special task is over? Prima facie, the verdict is less favorable than in the previous case. In general there are two principal processes by which a note circulation may be contracted: (1) *driving* the notes out of circulation, and (2) *drawing* them out. In so far as the former process is depended upon, means are devised to make sure that the notes shall persistently return to the issuer even against his will—they shall have good *homing* power. By the second process it is made to the advantage of the issuer of the notes to hasten their withdrawal himself.

As respects insuring contractility by the former of these processes, the act certainly cannot claim to promise high efficiency. The driving-out process requires roughly the fulfilment of two conditions: (1) keeping the channels for the return of notes to the issuer fairly open, and (2) supplying outsiders with a motive for sending the notes home. As regards the former of these conditions, the new system probably is all right. The return of the notes to the issuer seems not to be impeded by the inconvenience and expensiveness of the process. All

[1] On this point, see selections Nos. 144 and 145.—EDITOR.

member banks and all reserve banks must receive these notes, and the reserve banks will probably have branches within easy reach of any part of the district. Hence, any holder desiring to get notes back to the issuing bank will find the process easy and the way open. But good *homing* power requires more than this. It requires, namely, that adequate motives be supplied to people generally, or, at least, to banks generally, for seeing that the notes get back. It is not enough that the track be smooth; people must desire to use it. Now, earlier plans for securing elasticity relied on two principal motives for inducing holders to send notes back to the issuer: (1) the desire of such holders to make room for their own notes, and (2) their desire to exchange money which has various limitations imposed upon it for money which is free from those limitations. It is plain that the new system makes only a limited use of the former of these methods of procedure. *Within* the district for which any particular reserve bank is the central bank this particular force will be practically inoperative; for the power to issue notes on the basis of common assets is not given to any but reserve banks, and the profitableness of the power to issue the old type of note has always proved too slow to induce banks generally to take much trouble to get their notes into circulation. As between the reserve banks of the different districts, however, this particular motive will, of course, be more or less in evidence, since these reserve banks will all be competitors for this opportunity. But even here more effective means for insuring the return of the notes from outside banks are provided in other parts of the law.

As regards the second motive for returning idle notes—that is, the desire to exchange a money subject to those limitations—the new act does somewhat better than it does in respect to the first motive. It is, indeed, true that, within their own district, no special disability, like being forbidden to be paid out by other banks, is put on the new notes. But they are always subject to the disability of not being legal reserve money in the case of federal banks; and hence such banks will be more or less disposed to return the notes issued by their own reserve banks in order to exchange them for reserve money. It may be doubted, however, whether in ordinary times this will prove a very potent force, since country banks will usually keep reserves considerably in excess of legal requirements, and so will not need to discriminate nicely between the two sorts of money. As between districts, the case for the homing power of the new notes is rather stronger, since reserve banks are prohibited from paying out the notes of other

reserve banks under penalty of a 10 per cent tax. Even here, however, the provisions are none too adequate. While the notes of a particular reserve bank must not be paid out by the reserve banks of other districts, there is no prohibition against their being paid out by the member banks of other districts; and it is doubtful whether there is sufficient motive to induce said member banks of other districts to send in these notes to their own reserve banks and so start them on their homeward journey. The desire to exchange money which cannot be used as reserve for that which can be would have some force; but, under many circumstances, it would probably prove rather inadequate.

Another disability which contributes to the homing power of a bank note, and which is actually used in the case of our old notes, is not used with this new note—I mean the fact that they are not receivable for customs dues. The decision to omit this provision was perhaps wise; but it throws out a potent motive for sending notes home, and thus throws away an opportunity to make better provision for their contractility. On the whole, it must be acknowledged that, in so far as homing power is dependent on giving to outsiders strong and persistent motives for sending notes home, the new law is not altogether satisfactory.

We have seen that there is very little in the new system to secure that the notes shall have good homing power—shall get home by what we have called the *driving-in* process. Is the system better off as respects the *drawing-in* process? Are matters so arranged that the issuing bank will have the power and the desire to withdraw its notes—or at least contract the currency proportionately—when the need for the notes has fallen off? As respects the first part—making sure that the issuing bank shall have the power to retire its notes, or at any rate to effect a corresponding contraction of the currency—the new system is practically perfect, as indeed was the old one. That is, any reserve bank desiring to contract its note obligations may at its discretion deposit with the federal reserve agent reserve notes, gold, or lawful money. Obviously this, if not strictly a contraction of its note circulation, at least brings about the desired contraction of the general circulation.

When, however, we consider the provisions of the new law for insuring that reserve banks shall desire to contract their circulation when the special need has passed, we find that the law does not promise quite so well. The favorite device for accomplishing this result has

been, of course, a tax on issues similar to the 5 per cent tax of the German system. Apparently, the new law provides for something equivalent to this in the shape of an interest charge by the Federal Reserve Board, the rate to be fixed by said board. How far this device will prove effective in practice is not safe to predict. In order that it should induce the banks to contract their circulation, circumstances must have arisen under which the issuing bank would be earning on its outstanding notes a profit smaller than the tax itself. Now, it does not seem certain that an excessive issue of notes would necessarily bring about this condition. In the first place, in the absence of good homing power, a volume of notes in excess of business needs would not necessarily cause an accumulation of those notes in the vaults of the bank issuing them. Secondly, so long as member banks are free to keep their balances in banking institutions other than their reserve banks an excess of notes would not necessarily cause the general cash holdings of reserve banks to be abnormally large. For so long as the ordinary New York banks are permitted to pay interest on bankers' balances, country banks will to a considerable extent keep their balances with these outside New York banks; and it seems not unlikely that the excessive monetary stock thus accumulating in New York City would, instead of getting into the hands of the New York reserve bank, largely remain in the hands of the outside banking institutions and be employed more or less as it has been in the past; that is, in financing doubtful enterprises and supporting excessive speculation. But if the reserve banks do not feel the pressure of excessive issues in the shape of accumulations of notes or some form of money in their own vaults, they may conceivably be able to invest advantageously all the funds in their possession, and, in that case, the rate of interest charged by the Federal Reserve Board will not furnish an adequate motive for the retirement of their issues. Doubtless, however, this may in some degree be answered by saying that even an excess which was felt only outside the reserve bank would, after all, compel the reserve bank to contract its issues, since it would lower the rate of discount so greatly that reserve banks could not profitably invest their ordinary holdings, and consequently would wish to get rid of the interest charge. Perhaps this is true; but it would by no means insure the prompt and full contraction which most reformers have considered desirable.

From the foregoing it would seem that one of the devices for inducing the reserve banks to contract their issues after the need for them

had passed—that is, charging interest upon such issues—is not certain, at any rate, to prove adequate; it will not surely eliminate the winter plethora in New York City which is supposed to stimulate and support excessive stock speculation. But the new law contains another provision which may be viewed as a device for supplying the issuing banks with a motive for contracting their issues, namely, the requirement that such banks shall keep a gold reserve equal to 40 per cent of their issues. Is this likely to prove effective? Probably not. Whatever might be true in panicky times, it seems certain that in an ordinary year the gold holdings of a reserve bank will be much above 40 per cent of its note issue. If this is true, the maintenance of this 40 per cent could become difficult only when the excess of money was so great as to cause a dangerous exportation of gold from the country, and this surely would show a very inadequate degree of contractility. In short, the new law does not insure that issuing banks shall be sufficiently disposed to draw in their notes any more than it insures that outsiders will drive them in. It would seem, then, that the new law does not promise to give to the note issue the degree of contractility which has heretofore been considered desirable. In other words, there is some point in the fear expressed by many bankers that the new law will result in note inflation—at least in so far as the avoiding of this danger is dependent on the contractility of the note issue. Very likely, however, the possibility of such inflation is sufficiently guarded against by other provisions of the law.

II. ELASTICITY IN TIME OF CRISIS

The banking panic, when fully developed, gives rise to three difficulties and so to three needs: (1) funds to relieve the antecedent stringency which threatens a complete collapse of the credit structure; (2) a circulating medium for ordinary trade when a general suspension of payments by the banks has brought on a money famine; and (3) a prompt and thoroughgoing contraction of the circulation in the depression which follows the panic.

1. There surely can be no doubt that, under the new law, the availability of an issue sufficient in volume instantly to relieve the antecedent stringency, and so to put a stop to a panic before it has developed serious dimensions, is assured. In fact, it is not at all improbable that, under the new system, the reserve banks will be able to check the development of such a panic at the very outset without increasing at all their note issues. But if this does not prove true—

if it turns out that more currency is needed for this purpose—there would seem to be no shadow of doubt that the new system will insure the forthcoming of such currency both of a quality and in a quantity which will be fully adequate to the task put upon it. (*a*) The notes to be issued, being obligations of the federal Treasury, will be as acceptable as gold on the eve of a panic. (*b*) There is no limit to the absolute amount of these notes. (*c*) The practical limit set by the requirement that discounted paper shall be furnished as a basis for their issue is of no real significance, since such paper will undoubtedly be vastly greater in volume than any need which could arise. Accordingly, there can be no doubt that the new system provides all the expansibility needed to abort, or reduce to comparative harmlessness, any panic which might arise.

2. If panics should develop, however, and the banks be forced to suspend specie payments, does the new law insure an expansion of notes to meet the needs of ordinary trade? Our verdict in such an event would necessarily be less favorable. We should have to admit that the new law does little or nothing to relieve such a situation. Broadly speaking, the new money will be altogether too good to meet this particular need. Banks that had reached a stage of panic sufficiently intense to cause them to suspend payments—to hoard the ordinary forms of money—would be sure to hoard money as good as those notes are bound to be. That is, the new issue would immediately pass into hoards, as did the greenbacks which the Secretary of the Treasury reissued during the panic of 1873, and, therefore, would bring little if any relief to the currency famine which had developed. In fact, it is almost impossible to conceive any form of note fitted for this particular task except one which was so bad that there was no danger of its being hoarded. That is, the only proper way to meet this particular need of a severe panic is to make sure that it does not arise at all; and, in this respect, the new law promises well.

3. We come, finally, to the third need which emergency elasticity is supposed to meet, that is, a prompt and great contraction of the circulation when the panic, if one should develop, has passed and the inevitable business depression consequent upon such a panic has set in. While we shall doubtless escape the extreme business inflations of former ante-panic periods, nevertheless it can hardly be doubted that, after an incipient panic, there will be some reaction, and consequently a more or less plethoric condition of the currency will follow. Will the new issue have sufficient contractility to meet this need?

Earlier in this paper we have seen that the conditions attached to the new issue are in general not favorable to contractility, in that they do not provide for either the prompt driving home or the prompt drawing home of the notes when the necessity for their issue is past. Outsiders lack adequate motives for sending the notes home; issuers lack adequate motives for calling them home. The case for emergency contractility, however, is somewhat better than the case for ordinary contractility. First, it is probable that the homing power of the note will prove greater at such a time than in an ordinary year, for, at such a time, outside banks will not be able to find investments for their funds, since speculative trading will disappear altogether and business generally will be at a very low ebb. Again, it seems certain that the issuing bank will, in this case, have more than the usual motive for bringing about a contraction of the circulation. The chief reason why such a bank may not be eager in ordinary times to hasten the retirement of its notes is the fact that, provided the notes do not accumulate in its own vaults, such a bank will gain more by using the funds in its possession to make loans than it would by using them to retire notes, assuming that the interest charge made by the Federal Reserve Board is not placed excessively high. But it is practically certain that, in the depression which follows a panic, no reserve bank will have opportunities for keeping all of its funds busy; and since, in that case, the interest charge, however small, will be a dead loss, the bank will have adequate motives for effecting, as promptly as possible, an adequate contraction of its note liabilities. This motive would be still further strengthened should the glut prove sufficient to cause a decided drain of gold, since, in that case, the reserve banks will find difficulty in maintaining the required 40 per cent reserve. On the whole, then, we seem warranted in affirming that, as respects emergency elasticity, the new notes will give no serious disappointments.

Finally, as respects elasticity in general, though the note issue, viewed by itself, does not seem quite fitted to satisfy the tests which an old-fashioned advocate is inclined to impose upon it, yet, when we take the new law as a whole, it seems not unreasonable to affirm that it promises to accomplish, directly or indirectly, most of the ends which we had hoped to attain through elasticity, and hence promises to give us a system which in essentials is truly and adequately elastic.

144. ELASTICITY OF CREDIT UNDER THE NEW LAW[1]

By J. LAURENCE LAUGHLIN

How does the act touch the reserves and the rediscounts so that it may bring about the much-desired elasticity of credit? This is the nerve center of the whole act. The pivotal provisions are those which allow any member bank to have certain kinds of short-time paper rediscounted at its Federal Reserve Bank. At this institution the loan creates in favor of the borrowing bank a deposit-account. Then the pith of the operation resides in the fact that all sums kept on deposit at a Reserve Bank count as legal reserves for the given member bank. That is, the rigidity of credit-banking in the past, the destructive snatching for reserves, are displaced by a system which allows good commercial paper—under certain limitations—to be converted into lawful reserves. This is the process which directly touches the lending power of a member bank to its customers. Therefore in a time of panic—if any such arrives—there will be no reason for a run on cash reserves, or, if there is a semblance of it, there will be a quick and ready way by which the reserves can be replenished. There can be no serious run on the cash by the public, because the member bank can furnish at will reserve notes by making request for them at the Reserve Bank and having them charged against its deposit-account there. But it must still be kept in mind that banks deal primarily in credit and only incidentally in money. A sale of goods, which forms the basis of commercial paper, is thereby coined into a means of payment, and gives rise to its own medium of exchange without necessarily calling on any forms of money. And yet the elasticity of the notes and of credit are, as they should be, linked together. In short, both notes and deposits (on which checks can be drawn) respond directly to the volume of commercial loans, and these loans are directly related to the general volume of goods bought and sold. Thus automatically the amount of notes and the deposits adjust themselves to the needs of trade. This outcome is one which no system of notes directly issued by a government could possibly bring about.

Such being the provisions of the new act regarding elasticity of credit, are there any dangers of expansion? Fortunately the essential

[1] Adapted from "The Banking and Currency Act of 1913," *Journal of Political Economy*, XXII (1914), 423–29.

functions of discount are not hemmed in by detailed legislative prohibitions; fortunately, one must say, because discounting must always remain a matter of judgment, and much must be left to the management. Yet, on the other hand, this very freedom from restraint might result, under unwise management, in inflation and danger. This is inherent in the very nature of banking; since under any system, good or bad, everything depends upon the kinds of loans made.

Those loans, it should be noted, which result in deposit-accounts at Federal Reserve Banks (and which are not drawn down by requests for notes), directly increase the reserves of member banks until transferred by check. Thus the lending power of the member bank is more quickly and extensively enlarged by this process than by the issue of notes. Herein lies the pivotal question of overexpansion. Passing by the question of overexpansion through the issue of notes, it is desired mainly to study here that arising only from the use of deposit-accounts and checks, because these operations are less understood and are more elusive. Here the possibility of expansion is even greater than in connection with notes, because the proceeds of a loan at a Reserve Bank, if left there, at once count as reserves, and permit another increase of loans.

To this possibility of serious expansion what are the checks to be found in the bill? They may briefly be listed as follows:

1. The Reserve Banks must carry against deposits reserves of 35 per cent in gold or lawful money. But expansion will develop first in the member banks; and they are not required to keep as large reserves against deposits as before. They can make more profit with the same reserves by carrying more loans. Thus there is no restriction here, except that of refusal of loans by the Reserve Bank.

2. The Reserve Banks can use the rate of discount as a means of preventing undue expansion. This is the real means of control over expansion in Europe. The rate of discount must be raised early and not after the expansion has arrived. Watch must be kept on the particular bank beginning to expand its loans, and the treatment must be individually applied at the source.

3. A still more important check resides in the provision (sec. 13) that Reserve Banks shall rediscount only "notes, drafts, and bills of exchange arising out of actual commercial transactions," having a maturity of not over 90 days, although a limited amount of live-stock paper may have a maturity not exceeding six months. The final definition of all such paper is left to the Reserve Board. But loans secured by investment security cannot be rediscounted. The spirit of the act forbids loans for carrying

goods in storage for a higher price, and should confine loans to paper based on goods actually sold. Just how to define such paper lays a heavy responsibility on the Federal Board. On it will finally depend the kind of assets allowed to Reserve Banks.

4. A real restriction exists in making rediscounts on only short-time paper; but 90 days is somewhat too long for the best liquidity of assets. It was asserted, however, that country banks would gain no advantage by the new system because they had little or no short-time paper. The call of the Comptroller of August 9, 1913, showed that the 6,736 country banks held $1,735,000,000 loans having a maturity of 90 days or less and $1,137,000,000 maturing over 90 days. That is, one-half has a maturity of 90 days or less. In the city banks the ratio is 58 per cent 90 days or less to 42 per cent over 90 days. There is obviously enough paper to allow of expansion so far as quantity goes. The real check must be in passing on the paper.

5. The exclusion of investment paper cuts off all possibility of expansion by stock exchange speculation through the help of rediscounts at Reserve Banks.

6. Rediscounts at the Reserve Banks must be indorsed by the borrowing bank. Hence there will be some check here.

7. Also, no member bank may loan more than 10 per cent of its capital and surplus to any one person or firm. That is much the same now.

8. A real check is found in the restriction of discounts on acceptances to those based on importation or exportation of goods; and even these shall not exceed one-half the paid-up capital and surplus of the borrowing member bank. The omission of domestic acceptances is a serious handicap to the desired discount market, but it works toward a restriction of potential expansion.[1]

9. In practice the paper must pass rigid scrutiny in more than one step. First, it must satisfy the member bank; secondly, it must be satisfactory to the Reserve Bank; and, thirdly, if notes are wanted, it must pass the judgment of the Agent of the Reserve Board.

10. The power of the Reserve Board to examine into the operations of reserve banks, and the frequent or special examinations of member banks, will give an important control over expansion, or unsound banking, if legitimately used (secs. 21, 22, 23).

11. Again, it is to be noted that, in rediscounting, a large number of individual banks will be related to each other in a co-operative fashion. Something of an institutional character has been introduced, and it is possible to place responsibility here and there as was never possible before. This development should gradually and by experience prove of importance in controlling overexpansion.

[1] This has since been modified. See below, selection No. 154.—EDITOR.

It must be emphasized that the possibilities of undue expansion of credit cannot be removed by any legal provisions in an act. It may create machinery, but the speed with which it will be run will depend upon the judgment of the man at the throttle. Elasticity of credit has been given us with all its possibilities of good to business, together with all its possibilities for abuse. The whole safety of our credit fabric, therefore, rests upon those who pass on the paper discounted. Consequently, the success of the new system depends primarily on the men selected to manage the several Reserve Banks. In practical operation they are more important than those on the Reserve Board.

145. AID IN THE MOVING OF CROPS UNDER THE NEW SYSTEM[1]

The first public deposits made by the Secretary of the Treasury in the Federal reserve banks was on September 4–7, 1915. In speaking of these deposits the Secretary makes the following statement:

After a conference with my colleagues in the Federal Reserve Board I have concluded that the best plan for extending aid to the cotton producers of the South is to deposit the $30,000,000 in gold, concerning which I made an announcement a short time ago, in the three Federal reserve banks located at Richmond, Atlanta, and Dallas instead of in the member banks of the Federal reserve system.

Five million dollars ($5,000,000) will be deposited immediately in each of these banks, making a total initial deposit of $15,000,000. The Federal reserve banks have the organization, the knowledge of local conditions, and the powers under the Federal reserve act and the regulations of the Federal Reserve Board through which the proposed aid may be most effectively rendered.

Today the Board adopted regulations concerning "commodity paper." Under these regulations all national banks and State banks which are members of the Federal reserve system, which may lend money to farmers or others on notes secured by cotton, properly warehoused and insured, at a rate of interest, including commissions, not exceeding 6 per cent per annum, may rediscount such notes with the Federal reserve bank of their district. To illustrate how the proposed relief is available to the cotton producer the following is given as an example: A borrower asks his local bank for a loan on his note, secured by warehouse receipts for cotton. If the bank is satisfied that the cotton is in a responsible warehouse, properly insured, and that the note is good, it may make the loan. If the local bank charges the bor-

[1] From *Federal Reserve Bulletin*, October, 1915, p. 301.

rower a rate of interest, including commission, not exceeding 6 per cent per annum, it may indorse the note over to the Federal reserve bank of its district, and the Federal reserve bank may advance to the local bank the full amount of the loan. The rate of interest which the Federal reserve bank will charge the local bank will be sufficiently low, say 3 per cent, to enable the local bank to make loans at a rate of interest not exceeding 6 per cent per annum and have a liberal margin of profit on such transactions.

It must not be inferred that the regulations adopted by the Federal Reserve Board concerning commodity loans apply only to cotton. These regulations apply to all nonperishable and staple commodities in all parts of the country and, like credit facilities, are available to producers in all parts of the country.

146. GREENBACKS AND THE FEDERAL RESERVE SYSTEM[1]

By A. D. WELTON

At the meeting between the Conference of Governors of the Federal reserve banks, the Executive Committee of the National Bank Section, and the Committee on Federal Legislation in Washington last month, the representatives of the American Bankers' Association proposed that the greenbacks be retired and canceled. A joint committee was appointed to prepare and submit a plan for this purpose. It was suggested that the $150,000,000 of gold which is held as a reserve against the greenbacks be increased by $200,000,000 through the medium of a bond issue, in order to secure funds to pay these obligations of the Government. The Federal reserve banks would probably have to be designated as redemption agencies, and it will doubtless also be necessary to make silver and gold certificates legal tender as well as to fix a date after which greenbacks cannot be used as reserve money.

It was proposed many times when the Federal Reserve Act was in process of formulation that provision be made for the retirement of the greenbacks. If this proposal was not summarily brushed aside as neither desirable nor warranted, action was halted by the argument that the inclusion of the proposal in the general plan for a new banking system would excite so much controversy and arouse so much antagonism that matters of greater importance would be placed in jeopardy and the whole bill might fail. The greenbacks were let alone.

It was impossible to foresee what the monetary condition of the country would be two years after the bill creating the Federal reserve

[1] Adapted from *Journal of American Bankers' Association*, VIII (1916), 662–63.

system became a law. It is this condition that makes the suggestion for the retirement and cancellation of the greenbacks logical and pertinent. More than any other factor in the currency system these promises of the Government to pay prevent the Reserve Act from bringing to realization what was its first and most important purpose, providing an elastic currency. All the currency of all kinds that the country had before the Reserve Act went into operation is still in existence.

For issues of Federal reserve notes there has been small demand. The amount of them now outstanding, chargeable as a net liability of the reserve banks, is inconsequential. It is impossible to contract the currency below the fixed element in it when the flow of gold is toward this country and when business does not demand Federal reserve notes. The currency is, therefore, not flexible. It does not expand or contract according to the volume of business. It remains practically fixed when it would be much smaller if the quantity of it were measured by the commercial demand. It was presumed that with the natural growth of the nation's commerce it would grow up to the fixed elements in the currency and the Federal reserve notes would then provide all the elasticity needed. The influx of gold in consequence of the war is one reason for failure in this direction. The greenbacks, therefore, are water in the stock of currency, which is inflated in consequence.

If the Federal Reserve Act is not speedily amended so that flexibility may be provided and the necessary contraction in the currency may take place, the chief purpose of the Act, to provide an elastic currency, will have been defeated. The retirement of the greenbacks seems to be the simplest method of providing the necessary contraction. It would cause no disturbance. If progress toward a sound and scientific currency system is to continue, the sooner the greenbacks are out of the way the nearer will be this achievement. Just at present the continued existence of this form of currency is preventing a fair test of the adequacy of the whole Federal reserve system.

147. REDISCOUNTING AND EXPANSIBILITY OF DEPOSITS[1]

By E. E. AGGER

Let us consider the provisions made in the new law for insuring the "elasticity" of bank credit. The problem here is chiefly one of maintaining a proper relation between reserves and liabilities. The

[1] Adapted from "The Federal Reserve System," *Political Science Quarterly*, XXIX (1914), 271–78.

basic units of the system, namely, the member banks, are, within the limits prescribed by the national banking law with respect to loans to individuals, etc., free to expand deposits until their reserves fall to the prescribed minimum. As the deposits in the federal reserve banks themselves constitute the reserves for a considerable portion of the deposit liabilities of member banks, the reserve requirements for the federal reserve banks are properly more exacting. As the purpose of prescribing reserves is to check expansion, the banks are prohibited from making new loans, and incidentally from paying any dividends, when reserves fall below the prescribed percentages. Yet in order that the reserve requirements may not constitute an impassable "dead line" irrespective of the emergency, the Federal Reserve Board is authorized to suspend all the reserve requirements for a period of thirty days and, if necessary, to renew the suspension for periods of fifteen days. But to prevent this emergency expedient from resulting in turn in the evil of inflation, it is provided that when the Federal Reserve Board suspends the reserve requirements it must levy a graduated tax on the amounts by which the reserve may be permitted to fall below the specified level, and the reserve banks must then add such tax to the discount rates established by the Federal Reserve Board. A more adjustable check on expansion that can be applied before reserves drop to the danger point is found in the authority vested in the Federal Reserve Board to review and determine the rates of discount which the federal reserve banks may establish. How efficacious this authority will be remains to be seen. Much will depend upon the extent to which the discount rates of the federal reserve banks can be made to control the general market rates in their several districts.

Consideration should now be given to the plan by which the new system makes the centralized reserves and the notes of the reserve banks available to the member banks. First, it may be noted that the deposit balances in the reserve banks due to member banks are, within the limits already noted, to be counted as reserves by the member banks. This is of course a necessary corollary of centralized reserves. These deposits may be checked against member banks or be simply drawn down in reserve notes or lawful money. The important consideration for the member banks is therefore the maintenance of an adequate balance with the federal reserve bank.

This is made possible by provisions for rediscounting. With the indorsement of a member bank the federal reserve bank may discount

for such member bank certain notes, drafts, and bills of exchange. On the whole, therefore, it may be concluded that as long as a member bank keeps the required proportion of its reserves in lawful money in its own vaults the question of obtaining hand-to-hand money or that of strengthening reserves is simply one of having on hand an adequate supply of bills acceptable for rediscounting.

In connection with rediscounting, however, one important question remains. This relates to the provision made for one reserve district to get the advantage of possibly reduntant reserves in other districts. Students generally agree that nothing is so effective in bringing about a free flow of funds as an open discount market. With an open market under a system of centralized reserves local banks need turn to the central banks only when the credit on the basis of a given ratio of reserves has been entirely absorbed. Each bank buys or sells according to its own needs. If the paper available be of the proper character, and if the interbanking relations are such as to inspire the necessary confidence, this free flow of funds may not only characterize the country as a whole, but may also enter as an important possibility in international operations. Understanding the advantages of an open market, the framers of the law have endeavored to provide at least some of the facilities necessary to its creation. Member banks are permitted to "accept" on commission drafts or bills of exchange growing out of exports or imports having not more than six months' sight to run. The amount so accepted, however, is limited to half the bank's paid-up capital and surplus.[1] For bills with strong banks as the acceptors there ought to be a wide demand. Such bills ought to flow wherever the rate of discount is lowest. To facilitate this dispersion, the law permits the federal reserve banks to discount these acceptances when they have the indorsement of at least one member bank. But should it be impossible to build up an open market, or should the possibilities of such a market prove at any time inadequate, there is the provision that the Federal Reserve Board may permit, and on vote of five members may compel, the reserve banks to rediscount for each other. Moreover, the Federal Reserve Board fixes the rates at which such rediscounts are made. Thus under a system of district centralization the effort is made to get the advantages of complete centralization.

[1] For regulations of the Federal Reserve Board governing this business, see selection No. 156.—EDITOR.

148. DISCOUNT RATES ESTABLISHED

The following statement was issued by the Governor of the Federal Reserve Board on November 14, 1914, shortly after the inauguration of the system:

Rates of rediscount have been established as follows: New York and Philadelphia, 5½ per cent for bills and notes having a maturity of not over thirty days, and 6 per cent for paper with a longer maturity; Boston, Cleveland, Richmond, Chicago, and St. Louis, 6 per cent for all maturities; Atlanta, Minneapolis, Kansas City, Dallas, and San Francisco, 6 per cent for bills and notes having a maturity of not more than thirty days, and 6½ per cent for those having a longer maturity.

The Board took this action in accordance with the provisions of the Federal Reserve Act which authorized it to review and determine rates of discount fixed by each Federal Reserve Bank. Each of the banks was requested by telegraph to suggest a rate of discount for opening, and all of these replies were tabulated. The answers showed a very decided degree of uniformity, and many of the rates have been confirmed as suggested, the lowest suggested rate being 5 per cent while the highest was 7 per cent.

After full consideration of the facts in the situation, the Board felt it incumbent to adopt a moderate and conservative policy at the outset, in view of the fact that the exact conditions to which the banks will be subjected in operation cannot be precisely foretold. It was felt that the adoption of rates of rediscount which would adequately safeguard the resources of the various institutions would be the wisest policy at the beginning, in view of the disturbed conditions in the financial world. The Federal Reserve Banks have the right, with the approval of the Board, at any time to change the rates; and the present rates are, therefore, to be regarded as provisional and subject to revision. The Board expects to be governed entirely by experience as the new banks become firmly established and accumulate data which can be used for its guidance in reaching conclusions.

149. DISCOUNT RATES[1]

	Maturities of 10 Days and Less	Maturities of over 10 to 30 Days, Inclusive	Maturities of over 30 to 60 Days, Inclusive	Maturities of over 60 to 90 Days, Inclusive	Agricultural and Live-Stock Paper over 90 Days	Trade Acceptances		Commodity Paper
						To 60 Days, Inclusive	Over 60 to 90 Days, Inclusive	
Boston	3	3½	4	4	5	3½	3½	3½*
New York	3	4	4	4	5	3½	3½	.....
Philadelphia	3	4	4	4	4½	3	3	3*
Cleveland	3½	4	4	4½	5	3½	4	.....
Richmond	.....	4	4	4	5	3½	4	3*
Atlanta	.....	4	4	4	5	3½	3½	3
Atlanta (New Orleans branch)	.....	.....	.....	.....	.....	3½–4†	3½–4†	.....
Chicago	3½	4	4	4½	5	.....	.....	.....
St. Louis	3	4	4	4	5	3½‡	3½‡	3
Minneapolis	.....	4	4	4½	5	.....	.....	3
Kansas City	3½	4	4	4	5	3½	3½	3
Dallas	.....	4	4	4	4½	3½	3½	3
San Francisco	3	3½	4	4½	6	3	3½	§§

* Rate for commodity paper maturing within 90 days

† Rate for trade acceptances bought in open market without member bank endorsement.

‡ A rate of 2 to 4 per cent for bills with or without member bank indorsement has been authorized.

§ Rate for commodity paper maturing within 30 days, 3½ per cent; over 30 to 60 days, 4 per cent; over 60 to 90 days, 4½ per cent; over 90 days, 5 per cent.

[1] "Rates in Effect January 27, 1916," *Federal Reserve Bulletin*, February, 1916.

150. REDISCOUNTS BETWEEN FEDERAL RESERVE BANKS

The following statement was issued by the Federal Reserve Board on March 10, 1915:

In view of the possibility of an early demand for rediscounts between Federal Reserve Banks, the Federal Reserve Board today fixed a rate of rediscount for the present between Federal Reserve Banks of 3½ per cent for paper up to thirty days and 4 per cent for paper of maturities over thirty days and up to ninety days.

All applications for rediscounts are to be filed with the Federal Reserve Board, the Board reserving the right to apportion the applications for rediscount among other Federal Reserve Banks.

151. THE ADVANTAGES OF A DISCOUNT MARKET TO BANKERS[1]

By FRANK A. VANDERLIP

Among other things it will be the function of the twelve regional banks to loan to member banks through rediscounting for them. Not sometimes, but always and under all circumstances, we are told, the member banks will be able to rediscount at the federal reserve bank. A banker who can look into the future and know with absolute certainty that, under any circumstances, he can rediscount commercial paper in his portfolio will have removed from his life a good deal of fear.

Let us see what it means. It means that commercial paper will become the most liquid asset in the bank's portfolio. According to the practice of American banks, a loan once made to a commercial borrower must remain in the bank's portfolio until the loan matures. The exception to that is in the case of country banks which may rediscount to a limited extent with their city correspondents; but the large banks cannot rediscount. Not only is there no place for them to go, but it would be considered an exhibition of weakness. Hence a loan made to a commercial borrower by a large bank is a complete absorption of that portion of the bank's loanable funds until the maturity of the loan. If the banks in the future under this measure can always borrow, then the type of commercial paper that the bill permits as collateral for such loans becomes the most liquid asset that the bank could have.

[1] Adapted from "Rediscount Function of Federal Reserve Banks," *Proceedings of the American Academy of Political and Social Science*, IV (1913–14), 140–42.

Another result will, however, come from this. At the present time, as I have said, a loan must be held until maturity. One of the great needs of the country is a discount market, a market in which we can buy and sell commercial paper that has been endorsed by banks, so that the credit of the original maker is not taken much into consideration. We need to create a situation so that banks will buy and sell commercial paper in that market, so that they may buy one day and sell perhaps another day soon after, as we now make call loans one day and possibly call them the next day if our position changes. The existence of a discount market of that character would, I believe, be of the utmost importance to commerce as well as to the banks of the country. It is impossible to have such a discount market here without a central bank fully qualified to meet the responsibility that a central bank should bear,[1] that is to say, in the last resort to rediscount commercial paper. We are willing to invest our funds in commercial paper under that condition. If we know that when we need partially to liquidate our portfolio, and the market will not repurchase commercial paper, we can go to the central bank and have that paper rediscounted, we can afford to buy it. It is the ability to go ultimately to the central bank for discounts that will create the discount market.

The advantage of a discount market will be that we shall no longer have to keep a great amount of funds in call loans based on stock-exchange collateral. With a minimum reserve fixed by law, all banks naturally run pretty close to that minimum. This means that they must have some part of their loanable funds in a form in which they can readily convert them into cash; that is what we call the line of a secondary reserve. Today we are forced to carry this line of secondary reserve in loans upon stock-exchange collateral because that is the only type of loan which is immediately convertible into cash. That type of loan is all right in ordinary times, because it is immediately convertible into cash. It is, however, exactly the opposite of the ideal bank loan in that it has no self-liquidating quality. The only way the loan can be paid is by shifting it, either directly or through the sale of the collateral. There is no self-liquidating quality about it, and while it is satisfactory in ordinary times, it is full of the gravest danger at a time when it becomes impossible to shift it. If we redis-

[1] This was written two months before the passage of the Federal Reserve Act, when there was still controversy over the central bank.—EDITOR.

count commercial paper in the way outlined, we shall no longer feel under the necessity of carrying large amounts of stock loans; there would be liberated for commercial uses here in New York several hundred millions of dollars. Money now devoted to stock loans belongs to the loanable funds of both New York and out-of-town banks, for many out-of-town banks come into our call loan market, their loans reaching two or three hundred millions.

A discount market will at times attract foreign capital, because it will create paper of a form suitable for the use of foreign banks. At present there is practically no loaning of foreign capital on American commercial paper.

That it is very desirable to create a central bank or banks that will have power always to loan to member banks is obvious. If the measure now before Congress will accomplish it, it will bring lower commercial rates for the whole business community of the United States. It will accomplish a leveling process; rates will go up somewhat in the cities and down in the country districts; that is to say, there will no longer be the funds devoted to the very low-rate stock-exchange loans that we now have, and those funds going into commercial borrowing will tend to lower the general level of the commercial rate. It will become easier to transfer funds from one community where there is an overflow of loanable funds to another where there is strain. All these results would be accomplished, not because banks would continuously go to these central banks and borrow money, but because they would have a place to which they could go as a last resort. They would not want to go there normally; they would not expect to borrow money at a low rate from the central banks and reloan it at a higher rate; but the ability, in the last resort, to go there would give a liquid character to commercial loans, and that liquid character would bring the improvements that I have outlined.

152. THE NATURE AND ADVANTAGES OF BANK ACCEPTANCES[1]

A *bank acceptance* consists of the extension of the bank's credit to a customer by which the bank permits the use of its own credit by its client for a consideration, such credit being either secured or unsecured, depending entirely upon the business character and

[1] Adapted from a pamphlet on *Bank Acceptances*, issued by the Guaranty Trust Company, of New York. (Copyright, 1915.)

financial responsibility of the applicant. A *bank acceptance* may be created as follows:

A B & Co. in New York buy of C D & Co. in Galveston a quantity of merchandise. In order to reimburse C D & Co. in a convenient manner, A B & Co. arrange with their bank to accept on presentation the drafts of C D & Co., with documents for the merchandise attached. C D & Co. thereupon, under the terms of the sale, draw on the bank, which *accepts* the drafts, taking the documents. The draft thus becomes a *bank acceptance*. Then ensues a credit operation between the bank and A B & Co. as to what disposition is to be made of the documents and under what terms A B & Co. shall receive the documents from the bank. (It must be borne in mind that the bank is primarily liable upon its acceptance and the security for its acceptance is the merchandise for which it so acted.) This is usually easily adjusted. A B & Co. undertake by some means or other to provide the bank with funds prior to maturity of the draft in order that the acceptance for which the bank stands responsible, at the request of A B & Co., may be met.

There are certain distinct advantages both to banks and their customers to be derived from the creation of acceptances. These may be summarized as follows:

1. Bank customers can ordinarily borrow by this means more cheaply than by their straight note.

2. The use of acceptances makes it possible for banks and trust companies to properly and conveniently finance legitimate business transactions of their customers without using any of the bank's funds or the use of any additional funds.

3. Banks having surplus money which cannot be readily employed at the time can invest it in prime acceptances, which can either be held until maturity or sold in the open market, should such action be found necessary.

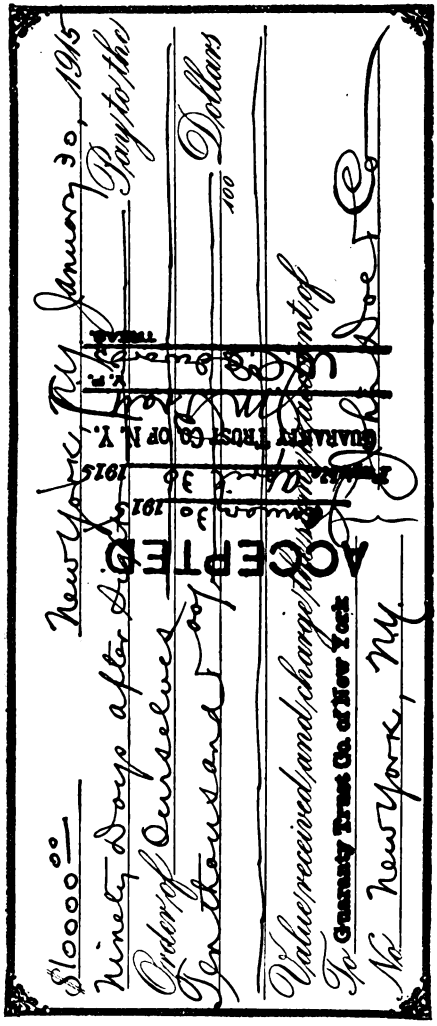
4. Acceptances of well-known institutions will more and more be sought as short-term investments and will be especially valuable for such a purpose, principally on account of their ready marketability.

5. Banks and trust companies can accept for a commission the paper issued by their best customers and sell it in the open market, thus adding to their business another feature which can be a source of definite profit.

6. The presence of the name of the accepting bank makes prime to the extent of the credit of the accepting bank the paper on which it appears. This at once eliminates the necessity and bother of checking the drawer or several endorsers upon paper, as the primary responsibility rests with the accepting bank. If this is in good credit all other names on the paper become proportionately of less interest.

7. With the development of the use of bank acceptances, the knowledge of the relations that the borrower has with other institutions, which the credit-extending banks will thus have, will create a condition of almost

automatic registration of paper, thus more than ever protecting the banks as well as the borrowers from the evil results of the overextension of credit.



BANK ACCEPTANCE

153. PROVISIONS GOVERNING BANKERS' ACCEPTANCES[1]

I. DEFINITION

In this regulation the term "acceptance" is defined as a draft or bill of exchange drawn to order, having a definite maturity, and payable in

[1] *Federal Reserve Board Circular No. 18*, September 7, 1915, containing amendments to the act approved March 3, 1915.

dollars, in the United States, the obligation to pay which has been accepted by an acknowledgment written or stamped and signed across the face of the instrument by the party on whom it is drawn; such agreement to be to the effect that the acceptor will pay at maturity according to the tenor of such draft or bill without qualifying conditions.

II. STATUTORY REQUIREMENTS UNDER SECTIONS 13 AND 14

Section 13 of the Federal Reserve Act as amended provides that—

(*a*) Any Federal Reserve Bank may discount acceptances—
  (1) Which are based on the importation or exportation of goods;
  (2) Which have a maturity at time of discount of not more than three months; and
  (3) Which are indorsed by at least one member bank.

(*b*) The amount of acceptances so discounted shall at no time exceed one-half the paid-up capital stock and surplus of the bank for which the rediscounts are made (except by authority of the Federal Reserve Board and of such general regulations as said Board may prescribe, but not to exceed the capital stock and surplus of such bank).

(*c*) The aggregate of notes and bills bearing the signature or indorsement of any one person, company, firm, or corporation rediscounted for any one bank shall at no time exceed 10 per centum of the unimpaired capital and surplus of said bank; but this restriction shall not apply to the discount of bills of exchange drawn in good faith against actually existing values.

Section 14 of the Federal Reserve Act permits Federal Reserve Banks, under regulations to be prescribed by the Federal Reserve Board, to purchase and sell in the open market bankers' acceptances with or without the indorsement of a member bank.

III. RULING

The Federal Reserve Board, exercising its power of regulation with reference to Paragraph II (*b*) hereof, rules as follows:

Any Federal Reserve Bank shall be permitted to discount for any member bank "bankers' acceptances" as hereinafter defined up to an amount not to exceed the capital stock and surplus of the bank for which the rediscounts are made.

IV. ELIGIBILITY

The Federal Reserve Board has determined that, until further order, to be eligible for discount under section 13, by Federal Reserve Banks, at the rates to be established for bankers' acceptances:

(*a*) Acceptances must comply with the provisions of Paragraph II (*a*), (*b*), (*c*) hereof.

(*b*) Acceptances must have been made by a member bank, non-member bank, trust company, or by some private banking firm, person, company, or corporation engaged in the business of accepting or discounting. Such acceptances will hereafter be referred to as "bankers," acceptances.

(*c*) A banker's (foreign) acceptance must be drawn by a purchaser or seller or other person, firm, company, or corporation directly connected with the importation or exportation of the goods involved in the transaction in which the acceptance originated, or by a "banker." The bill must not be renewed after the goods have been surrendered to the purchaser or consignee, except for such reasonable period as may have been agreed upon at the time of the opening of the credit as a condition incidental to the importation or exportation involved, provided that the bill must not contain or be subject to any condition whereby the holder thereof is obligated to renew the same at maturity.

(*d*) A banker's (foreign) acceptance must bear on its face or be accompanied by evidence in form satisfactory to a Federal Reserve Bank that it originated in, or is based upon, a transaction or transactions involving the importation or exportation of goods. Such evidence may consist of a certificate on or accompanying the acceptance to the following effect:

"This acceptance is based upon a transaction involving the importation or exportation of goods. Reference No. ——. Name of acceptor ——."

(*e*) Bankers' acceptances, other than those of member banks, shall be eligible only after the acceptors shall have agreed in writing to furnish to the Federal Reserve Banks of their respective districts, upon request, information concerning the nature of the transactions against which acceptances (certified or bearing evidence under IV (*d*) hereof) have been made.

(*f*) A bill of exchange accepted by a "banker" may be considered as drawn in good faith against "actually existing values," under II (*c*) hereof, when the acceptor is secured by a lien on or by transfer of title to the goods to be transported or by other adequate security.

(*g*) Except in so far as they may be drawn in good faith against actually existing values, as under (*f*), the bills of any one drawer drawn on and accepted by any firm, person, company, or corporation (other than a bank or trust company) engaged in the business of discounting and accepting, and discounted by a Federal Reserve Bank, shall at no time exceed in the aggregate a sum equal to a definite percentage of the paid-in capital of such Federal Reserve Bank; such percentage to be fixed from time to time by the Federal Reserve Board.

(*h*) The aggregate of acceptances of any firm, person, company, or corporation (other than a bank or trust company) engaged in the business of discounting or accepting, discounted or purchased by a Federal Reserve Bank, shall at no time exceed a sum equal to a definite percentage of the

paid-in capital of such Federal Reserve Bank; such percentage to be fixed from time to time by the Federal Reserve Board.

To be eligible for purchase by Federal Reserve Banks under section 14, bankers' acceptances must comply with all requirements and be subject to all limitations hereinbefore stated, except that they need not be indorsed by a member bank: *Provided, however*, That no Federal Reserve Bank shall purchase the acceptance of a "banker" other than a member bank which does not bear the indorsement of a member bank, unless a Federal Reserve Bank has first secured a satisfactory statement of the financial condition of the acceptor in form to be approved by the Federal Reserve Board.

V. POLICY AS TO PURCHASES

While it would appear impracticable to fix a maximum sum or percentage up to which Federal Reserve Banks may invest in bankers' acceptances, both under section 13 and section 14, it will be necessary to watch carefully the aggregate amount to be held from time to time. In framing their policy with respect to transactions in acceptances, Federal Reserve Banks will have to consider, not only the local demands to be expected from their own members, but also requirements to be met in other districts. The plan to be followed must in each case adapt itself to the constantly varying needs of the country.

VI. ACCEPTANCE BY MEMBER BANKS

Any member bank may accept drafts or bills of exchange drawn upon it, having not more than six months' sight to run and growing out of transactions involving the importation or exportation of goods up to an amount not exceeding the capital and surplus of such bank, provided that—

1. Every such bank shall possess an unimpaired surplus of not less than 20 per cent of its paid-in capital.

2. Every such bank shall file formal application with the Federal Reserve Bank of its district, which shall report to the Federal Reserve Board upon the standing of such applicant, stating also whether the business and banking conditions prevailing in the district warrant the granting of such applications in said district.

3. Every such application shall first have been approved by the Federal Reserve Board.

Approval of any such application may be rescinded, and modifications of this regulation may be made, by the Federal Reserve Board upon notice of 90 days to the bank or banks thereby affected.

154. DOMESTIC ACCEPTANCES PROVIDED FOR[1]

The appended regulation is intended to cover the purchase in the open market, not only of bankers' acceptances based on the importa-

[1] Adapted from *Federal Reserve Board Circular No. 19*, November 29, 1915. Paragraph numbering has been changed in attempting to avoid duplications in *Circulars Nos. 18* and *19*. See selection No. 153.—EDITOR.

tion or exportation of goods, heretofore covered by Regulation R, but also the purchase of certain domestic acceptances authorized by certain State laws.

The Federal Reserve Board has determined that bankers' domestic acceptances, as defined and restricted in the appended regulation, are a very useful type of paper, and the Board has not felt justified, therefore, when admitting State banks and trust companies into the Federal Reserve System, in stipulating that such domestic acceptances should not be continued under reasonable limitations as a part of their business.

Inasmuch as the making of these domestic acceptances has been recognized by the Board as the exercise of a legitimate banking function when authorized by law, it was thought that they are of the character to make desirable investments for Federal Reserve Banks. The Board has, therefore, issued the appended regulation, not only embodying the authority given in Regulation R, series of 1915, to purchase bankers' acceptances based on the importation or exportation of goods, but also authorizing the purchase of bankers' domestic acceptances within the limits prescribed in the appended regulations.

1. A banker's domestic acceptance must be based on a transaction covering the shipment of goods, such transaction to be evidenced at the time of acceptance by accompanying shipping documents, or must be secured by a warehouse receipt covering readily marketable staples and issued by a warehouse independent of the borrower, or by the pledge of goods actually sold.

2. A banker's domestic acceptance must bear on its face or be accompanied by evidence in form satisfactory to the Federal Reserve Bank that it is based on a transaction or is secured by a receipt or pledge. Such evidence may consist of a certificate in general form similar to that suggested in (*d*) *Circular No. 18*, governing foreign acceptances.[1]

3. Provision (*e*) in *Circular No. 18* is also made applicable to domestic acceptances.

4. The following provisions supersede (*g*) and (*h*) in *Circular No. 18:*

a) The aggregate of bills, domestic and foreign, of any one drawer, drawn on and accepted by any bank or trust company and purchased or discounted by a Federal Reserve Bank, shall at no time exceed 10 per cent of the unimpaired capital and surplus of such bank or trust company, but this restriction shall not apply to the purchase or discount of bills drawn in good faith against actually existing values; that is, bills the acceptor of which is secured by a lien on or by a transfer of title to the goods to be transported, or by other adequate security, such as a warehouse receipt, or the pledge of goods actually sold.

[1] For the provisions of *Circular No. 18*, see selection No. 153.—EDITOR.

b) The aggregate of bills, domestic and foreign, of any one drawer, drawn on and accepted by any firm, person, company, or corporation (other than a bank or trust company) engaged in the business of discounting or accepting, and purchased or discounted by a Federal Reserve Bank, shall at no time exceed a sum equal to a definite percentage of the paid-in capital of such Federal Reserve Bank, such percentage to be fixed from time to time by the Federal Reserve Board; but this restriction shall not apply to the purchase or discount of bills drawn in good faith against actually existing values; that is, bills the acceptor of which is secured by a lien on or by a transfer of title to the goods to be transported or by other adequate security, such as a warehouse receipt, or the pledge of goods actually sold.

c) The aggregate of bankers' acceptances, domestic and foreign, made by any one firm, person, company, or corporation (other than a bank or trust company) engaged in the business of discounting or accepting, purchased or discounted by a Federal Reserve Bank, shall at no time exceed a sum equal to a definite percentage of the paid-in capital of such Federal Reserve Bank; such percentage to be fixed from time to time by the Federal Reserve Board.

No Federal Reserve Bank shall purchase a domestic or foreign acceptance of a "banker" other than a member bank which does not bear the indorsement of a member bank, unless there is furnished a satisfactory statement of the financial condition of the acceptor in form to be approved by the Federal Reserve Board.

POLICY AS TO PURCHASES

Federal Reserve Banks should bear in mind that preference should be given wherever possible to acceptances indorsed by a member bank, discounted under section 13, not only because of the additional protection that such indorsement affords, but also because of the reason that acceptances discounted under section 13 may be used as collateral security for the issue of Federal Reserve notes.

155. FEDERAL RESERVE BANKS AND THE FOREIGN EXCHANGES[1]

By E. E. AGGER

Important provisions are to be noted in connection with the foreign exchanges and the international movements of gold. Most of the foreign trade of the United States has heretofore been financed by foreign bankers. The new system permits the home institutions to enter the field for this business. Member banks are allowed

[1] Adapted from "The Federal Reserve System," *Political Science Quarterly*, XXIX (1914), 279–81.

within certain limits to accept on commission drafts and bills of exchange growing out of exports and imports, and these may be sold in the open market or ultimately rediscounted at the federal reserve banks.[1] National banks with a capital and surplus of $1,000,000 or more may, with the permission of the Federal Reserve Board, establish branches abroad. Similarly the reserve banks, when duly authorized, may open accounts in foreign countries and may establish branches for purchasing, selling, and collecting bills of exchange bearing at least two names and maturing within ninety days. But the extent to which American bankers will be able to supplant the foreigner will depend, of course, largely upon the acceptability of bills drawn in dollars. This will depend, among other things, upon the market rate of discount in the United States in competition with the rates abroad. If the new system successfully establishes American credit in the world markets, a large part of the tribute that American commerce now pays to foreign bankers will stay at home.

The provisions bearing on the foreign exchanges and gold movements are of special interest. In addition to the dealings with their member banks, the reserve banks are permitted to purchase and sell in the open market, at home and abroad, cable transfers of funds, bankers' acceptances, and bills of exchange of the kind that are eligible for rediscount, with or without the indorsements of a member bank. Furthermore, they may deal in gold coin and bullion, at home and abroad, may make loans thereon, may exchange federal reserve notes for gold in bullion and in coin, or for gold certificates, and they may contract for loans of gold. Finally, under rules prescribed by the Federal Reserve Board, they may buy and sell, at home and abroad, United States bonds, and notes, bills, bonds, revenue warrants, etc., of the stated and minor political divisions.

The significance of these provisions can hardly be overestimated. Taken together, they mean that in the foreign exchange market the reserve banks will not only become competitors of existing banks but also that they are likely to become the controlling factors in that market. In normal times, owing to their extensive resources and wide powers, they will markedly influence the general drift of the exchanges, while in times of strain they ought to be in position to render most helpful aid. Their buying of bills in the open market will enable them to support the demand side when rates are low, and

[1] Subsequent rulings of the Federal Reserve Board have greatly strengthened the acceptance features of the law. See selections Nos. 153 and 154.—EDITOR.

will at the same time enable them to throw exchanges on the market when rates are high. European experience has shown this to be a most useful expedient in checking unnecessary gold movements. Moreover, the full authority granted to the reserve banks to deal in, to borrow, or to make loans against gold at home and abroad and to buy and sell governmental securities, secures the possibility of creating credits that can be used either as an offset for debts, the payment of which would otherwise necessitate gold exports, or as a means of obtaining gold to strengthen reserves at home. Furthermore, through the final control of discount rates, if that control can in practice be made effective, the Federal Reserve Board acting through the reserve banks may check the outward flow of gold. If the nation's credit position is strong enough, it may even attract gold to the home market from abroad. As final guarantee to the world of the solidarity of the whole system, the gold standard is reaffirmed and the Secretary of the Treasury is authorized to purchase gold if necessary with one-year 3 per cent notes or to borrow it on the security of United States bonds.

156. OPEN-MARKET OPERATIONS[1]

There remain still to be dealt with under "Open-Market Operations" the purchase and sale of "cable transfers" and bills of exchange, both domestic and foreign, of the kinds and maturities by this Act made eligible for rediscount, and bankers' acceptances payable in foreign countries and in foreign currencies. The present circular and regulation is intended to cover these items. The Board wishes particularly to call attention to the purpose of the open-market section of the Federal Reserve Act. It enables the Federal Reserve Banks to exert a steadying influence upon prevailing rates of interest by the use of their purchasing power whenever conditions make such influence desirable, and when, owing to the lack of applications for rediscounts, they are unable to influence rates through the latter means. It also affords to the Federal Reserve Banks the opportunity of purchasing in the open market paper with a view to providing for their expenses and dividends. The Board is of the opinion that the Federal Reserve Banks should, when occasion warrants, stand ready to engage in open-market transactions, as buyers or sellers, to the extent that it is necessary to carry out the purposes of the Act.

[1] Adapted from *Federal Reserve Board Circular No. 20*, December 4, 1915.

General Open-Market Operation

I. DEFINITION

Open-market operations, as contemplated under the Federal Reserve Act, are all those transactions authorized by section 14 of the Act which involve dealings with persons or institutions—whether or not members of the Federal Reserve System—and which do not require the indorsement of a member bank.

II. CABLE TRANSFERS AND FOREIGN BILLS OF EXCHANGE

In order to carry on open-market transactions in cable transfers and foreign bills of exchange (including foreign bankers' acceptances)—that is, payments to be made in, or bills payable in, foreign countries—it will be necessary for Federal Reserve Banks to open accounts with correspondents or establish agencies in foreign countries. Such bills of exchange and foreign acceptances must comply with the applicable requirements of sections 13 and 14. As the law prescribes that these connections are to be established only with the consent of the Federal Reserve Board, Federal Reserve Banks will be required to communicate with the Federal Reserve Board whenever they are ready to enter these foreign fields.

The Federal Reserve Board realizes that in dealing in foreign exchange the Federal Reserve Banks must necessarily have wide discretion in determining the rates at which they will buy or sell. It is not necessary that the bills shall have been actually accepted at the time of purchase. The Federal Reserve Board, however, will require that unaccepted "long bills," payable in foreign countries, when purchased, unless secured by documents, shall bear one satisfactory indorsement other than those of the drawer or acceptor, preferably that of a banker. Federal Reserve Banks should exercise due caution in dealing in foreign bills, and boards of directors should fix a limit within which the acceptances or bills of a single firm may be taken.

III. DOMESTIC BILLS OF EXCHANGE

The Federal Reserve Board has determined that a domestic bill of exchange, in order to be eligible for purchase under section 14 by a Federal Reserve Bank, at the rate to be established for open-market operations—

a) Must be a bill the proceeds of which have been used, or are to be used, in producing, purchasing, carrying, or marketing goods in one or more steps of production, manufacture, and distribution; but shall not be eligible if its proceeds have been used, or are to be used, for a permanent or fixed investment of any kind; for example, land, buildings, machinery, etc., or for any investment of a merely speculative character.

b) Must have been drawn by a domestic or foreign firm, company, corporation, or individual upon a firm, company, corporation, or individual in the United States; but need not bear the indorsement of a member bank.

c) Must have been accepted by the drawee prior to the purchase by a

Federal Reserve Bank unless accompanied and secured by approved warehouse receipts, bills of lading, or other such documents covering readily marketable goods.

IV. DOMESTIC BILLS—CONDITIONS OF PURCHASE

a) Before purchasing domestic bills of exchange, the Federal Reserve Bank must secure statements concerning the condition and standing of the drawer of the paper, and, if possible, also of the acceptor of the bill, sufficient to satisfy the bank as to the nature and quality of the paper to be purchased.

b) No Federal Reserve Bank will be permitted to purchase bills of any one drawer, or issued upon any one maker, to an amount to exceed in the aggregate a percentage of its capital, to be fixed from time to time by the Federal Reserve Board, except when secured by approved warehouse receipts, bills of lading, or other such documents covering readily marketable goods. The aggregate amount drawn on any one acceptor, purchased by Federal Reserve Banks, shall not exceed a reasonable percentage of the stated net worth of the parties whose names appear upon the paper.

V. RATES

Federal Reserve Banks desiring to engage in open-market transactions in domestic bills of exchange shall communicate to the Federal Reserve Board the rate they desire to establish, for review and determination.

157. TIME DEPOSITS AND SAVINGS ACCOUNTS[1]

The Federal Reserve Board deems it advisable to define under the following headings those deposits against which the Federal Reserve Act requires a reserve of only 5 per cent to be maintained:

1. Time deposits, open accounts.
2. Savings accounts.
3. Certificates of deposit.

It was clearly not the intention of the Act to permit a reduction of reserves to 5 per cent upon deposits which may be ordinarily checked upon, but in respect to which a bank, by a blanket provision in its by-laws, may at any time require a withdrawal notice of not less than 30 days to be given. The reduction of the reserve to be carried against time deposits is intended to apply only to deposits under written agreement not to be withdrawn within 30 days from the date as of which the reserve calculation is made. Therefore, on the date

[1] *Circular No. 6* and Regulation E of Federal Reserve Board, January 15, 1915. (Published in Monthly Letter of National City Bank, New York, February, 1915.)

of calculating reserve, under the definitions contained in the accompanying regulation, no deposit may be deemed a *time deposit*, whether on *open account* or on *certificate*—

a) If it is payable within 30 days, because of the approaching end of the specified period for which it was deposited or because of receipt of notice of the date on which withdrawal will be made.

b) If it may be withdrawn by check within 30 days, although the bank may have the right, by written contract or otherwise, to require a withdrawal notice of not less than 30 days.

Nor may any certificate of deposit be considered a time certificate if any part of the amount represented by it is subject to check or may be withdrawn without the presentation of the certificate for proper indorsement.

While savings accounts may at any time, by the action of the bank, be converted into time deposits, they are, nevertheless, ordinarily withdrawable on demand. In the absence of any statutory limitation upon the sum which may be received by a bank from any one individual as a savings account, the Board has no authority, for the purpose of calculating reserves, to impose any such limitation, but it feels strongly that in the interest of both the member banks and the Federal Reserve System, the broad provisions of the Act in respect to time deposits, savings accounts, and certificates of deposit, should not be made the means of any large general reduction of reserves by a transfer to those *forms* of deposits which are in *substance* demand deposits; and it is the purpose of the Board to countenance or permit a reduction of reserves to 5 per cent *only* on deposits which are, in fact as well as in form, entitled to such reduction within the spirit of the Act.

Banks carrying savings accounts must record them in separate ledgers which do not contain ordinary checking accounts or other items. Open time accounts and time certificates of deposit should also be carried in separate ledgers, but if carried in the same ledger with current checking accounts they must be grouped together so as to be readily distinguished from the latter.

The Board desires to make it clear that the Act requires the full reserve, at the rate prescribed for demand deposits, to be carried against all savings accounts and all time deposits whether on open account or certificate, which are subject to check or which the bank has been notified are to be withdrawn within 30 days.

REGULATION GOVERNING TIME AND SAVINGS DEPOSITS

Section 19 of the Federal Reserve Act provides, in part, as follows:

Demand deposits, within the meaning of this Act, shall comprise all deposits payable within 30 days, and time deposits shall comprise all deposits payable after 30 days, and all savings accounts and certificates of deposit which are subject to not less than 30 days' notice before payment.

TIME DEPOSITS, OPEN ACCOUNTS

The term "time deposits, open accounts" shall be held to include all accounts, not evidenced by certificates of deposit or savings passbooks, in respect to which a written contract is entered into with the depositor at the time the deposit is made that neither the whole nor any part of such deposit may be withdrawn by check or otherwise.

SAVINGS ACCOUNTS

The term "savings accounts" shall be held to include those accounts of the bank in respect to which, by its printed regulations, *accepted by the depositor at the time the account is opened*—

a) The passbook, certificate, or other similar form of receipt must be presented to the bank whenever a deposit or withdrawal is made.

b) The depositor may at any time be required by the bank to give notice of an intended withdrawal not less than 30 days before a withdrawal is made.

TIME CERTIFICATES OF DEPOSIT

A "time certificate of deposit" is defined as an instrument evidencing the deposit with a bank, either with or without interest, of a certain sum specified on the face of the certificate, payable in whole or in part to the depositor or to his order—

a) On a certain date, specified on the certificate, not less than 30 days after the date of the deposit, or

b) After the lapse of a certain specified time subsequent to the date of the certificate, in no case less than 30 days, or

c) Upon written notice given a certain specified number of days, not less than 30 days before the date of repayment, and

d) In all cases only upon presentation of the certificate at each withdrawal for proper indorsement or surrender.

158. COMBINED STATEMENTS OF FEDERAL RESERVE BANKS[1]

RESOURCES

	February 4, 1916	January 28, 1916
Total gold reserve	$342,004,000	$349,861,000
Legal tender notes, silver, etc	14,637,000	15,496,000
Total reserve	$356,641,000	$365,357,000
Bills discounted and loans:		
Maturities within 30 days	$ 17,355,000	$ 19,003,000
Maturities within 60 days	20,740,000	18,518,000
Maturities within 90 days	10,391,000	12,185,000
Over 90 days	2,837,000	3,509,000
Total	$ 51,323,000	$ 53,215,000
Investments	$ 45,197,000	$ 41,974,000
Federal Reserve notes, net	33,710,000	36,469,000
Due from Federal Reserve banks, net	15,223,000	10,761,000
All other resources	11,903,000	9,994,000
Total resources	$513,997,000	$517,770,000

LIABILITIES

Capital paid in	$ 54,907,000	$ 54,892,000
Government deposits	29,850,000	27,760,000
Reserve deposits, net	419,137,000	424,664,000
Federal Reserve notes, net	9,966,000	10,313,000
All other liabilities	137,000	141,000
Total liabilities	$513,997,000	$517,770,000
Gold reserve against net liabilities	77.1%	77.4%
Cash reserve against net liabilities	80.4%	80.8%

Rediscount and circulation compare with last week as follows:

	Federal Reserve Notes in Circulation		Rediscounts	
	February 4	January 28	February 4	January 28
Boston	$ 8,902,000	$ 8,995,000	$ 7,883,000	$ 7,611,000
New York	72,005,000	69,055,000	11,386,000	10,663,000
Philadelphia	7,882,000	8,002,000	1,940,000	2,296,000
Cleveland	10,292,000	10,306,000	1,145,000	1,291,000
Richmond	13,931,000	14,055,000	6,846,000	6,898,000
Atlanta	16,011,000	15,935,000	5,764,000	6,490,000
Chicago	2,613,000	2,633,000	4,374,000	5,311,000
St. Louis	7,873,000	8,009,000	1,712,000	1,896,000
Minneapolis	12,393,000	12,390,000	1,443,000	1,569,000
Kansas City	10,077,000	10,120,000	3,064,000	3,366,000
Dallas	13,747,000	14,003,000	4,639,000	4,592,000
San Francisco	5,642,000	5,721,000	1,127,000	1,232,000
Total	$181,368,000	$179,224,000	$51,323,000	$53,215,000

[1] From *Federal Reserve Bulletin*, February, 1916.

159. CLEARINGS UNDER THE NEW SYSTEM[1]

The provisions of the Federal Reserve Act with respect to the introduction of a system of clearings are found in section 16, where it is provided that—

> Every Federal Reserve Bank shall receive on deposit at par from member banks or from Federal Reserve Banks checks and drafts drawn upon any of its depositors, and when remitted by a Federal Reserve Bank, checks and drafts drawn by any depositor in any other Federal Reserve Bank or member bank upon funds to the credit of said depositor in said Reserve Bank or member bank. Nothing herein contained shall be construed as prohibiting a member bank from charging its actual expense incurred in collecting and remitting funds, or for exchange sold to its patrons. The Federal Reserve Bank shall, by rule, fix the charges to be collected by the member bank from its patrons whose checks are cleared through the Federal Reserve Bank and the charge which may be imposed for the service of clearing or collection rendered by the Federal Reserve Bank.
>
> The Federal Reserve Board shall make and promulgate from time to time regulations governing the transfer of funds and charges therefor among Federal Reserve Banks and their branches, and may at its discretion exercise the functions of a clearing-house for such Federal Reserve Banks, or may designate a Federal Reserve Bank to exercise such functions, and may also require each such bank to exercise the functions of a clearing-house for its member banks.

It is evident that this provision distinctly contemplates two classes of work:

a) A clearing system providing for the clearing of items among member banks which are stockholders and depositors in any Federal Reserve Bank.

b) A clearing system which shall provide for clearing the transactions of Federal Reserve Banks among themselves.

160. GOLD CLEARANCE FUND AT WASHINGTON[2]

Provision has been made by the Federal Reserve Board for the establishment of a gold clearance fund at Washington for the purpose of effecting with as little delay and cost as possible settlements between Federal Reserve Banks. This proposed plan of interbank settlement is intended to complete and be adjusted to an intradistrict clearance system, but its operations will be independent of the latter.

[1] From *First Annual Report of the Federal Reserve Board*, p. 135.

[2] From *Federal Reserve Bulletins*, May and December, 1915.

Gold coin and currency will be shipped to Washington or to a subtreasury and turned over to the Treasurer of the United States, who will issue gold order certificates payable to the Federal Reserve Board or to any Federal Reserve Bank. The books of the gold settlement fund will show exactly how much has been paid in at the outset by each Federal Reserve Bank, and each bank will be informed of the receipt of this amount. Gold order certificates so received will be placed in a safe and this safe in turn will be placed in the main vault of the Treasury Department.

When the transfers are to be made from one bank to another as the result of change in ownership, two signatures will be necessary on the order certificates. These order certificates will be prepared in such a way as to require the signature of the governor or acting governor of the Board and one additional person, who may be either the secretary, the fiscal agent, or the supervisor of clearings.

When transfers are made by the Federal Reserve Board, the balances that accrue to the respective reserve banks may be paid by indorsement and by return to the respective banks of a like amount of such gold certificates held by the Federal Reserve Board, or by the indorsement and delivery to the Treasurer of a like amount of such certificates for which he will give in exchange bearer gold certificates, which the Board may send to the banks by insured registered mail if they want funds other than gold certificates, or in lieu of such payment the Treasurer may by wire direct payment to be made by a subtreasury office, provided that funds are held in such office available for the purpose.

The first actual clearing was on May 26, each Federal Reserve Bank at that time being required to deposit $1,000,000 in the fund and an amount in addition equal to its indebtedness to other Federal Reserve Banks.

Deposits by the Federal Reserve Banks in this fund are counted as legal reserve. On September 8, 1915, the Board authorized accounts to be opened with the 12 Federal Reserve Agents. The fund is now divided as follows: balances to the credit of Federal Reserve Banks, $69,240,000; balances to the credit of Federal Reserve Agents, $33,380,000.[1]

These amounts are now held by the Board in gold order certificates in denominations of $10,000. Deposits in the fund are, through the courtesy of the Treasury Department, made by Federal Reserve

[1] November 18, 1915.

Banks through the subtreasuries. When a deposit is made at a subtreasury, advice is wired to the Treasurer of the United States at Washington, who then causes gold certificates to be issued to the Federal Reserve Board. When payments are made from the fund, the operation is of course reversed. Transfers are, however, for the most part on the books of the gold settlement fund by credits and debits between the twelve banks or between banks and the Federal Reserve Agents.

161. INTERDISTRICT COLLECTIONS[1]

By MILTON C. ELLIOT

Another great advantage which will accrue to the member banks as a result of the establishment of this system is the collection of foreign or out-of-town items. While the subject of clearing items for so many banks and over so large a territory is one which in itself will require most careful study in placing it in operation, and one which might be made the subject of a discussion of some length, it must be apparent to those familiar with it that the establishment of twelve distinct Federal Reserve banks, serving member banks of twelve distinct districts, will furnish a machinery which will greatly reduce the average time of making collections. To illustrate: Five banks in the city of Columbus might on the same day receive for deposit five different items drawn on the same bank in California. Under existing conditions those five items might be sent to five different correspondents and might each take a separate and distinct route in going from Columbus to California, so that the return from the items drawn on the same point might each be received at a different time.

This is manifest because one bank in Columbus might send it to its correspondent in New York, which in turn might send it to its correspondent in Chicago, which in turn might send it to its correspondent elsewhere, and the item would normally be kept in transit until it reached a bank which happened to be a correspondent of the bank on which the item was drawn or else reached the city in which the bank is located against which the item was drawn and is presented by some other bank in that city. Another bank might send its item for collection through an entirely different set of correspondent banks.

When the Federal Reserve banks have been established, however, and the machinery has been worked out for the handling of such

[1] Adapted from an address before the Ohio Bankers' Association, May, 1914. (Published in Monthly Letter of National City Bank, New York, June, 1914.)

items, all the items from Columbus could go at once to the Federal Reserve bank of its district in Cleveland, from the Federal Reserve bank of Cleveland direct to the Federal Reserve bank of San Francisco, and assuming that they are drawn on member banks the Federal Reserve bank of San Francisco would necessarily be a correspondent of the bank in question. Consequently, the saving in the average time of collection of foreign items will unquestionably be very great and the loss of the use of funds in transit will be correspondingly reduced.

C. Relation of the System to Other Banking Institutions

162. MEMBERSHIP OF STATE BANKS IN THE FEDERAL RESERVE SYSTEM[1]

The Federal Reserve Board has prepared and issued regulations (*Circular No. 14*, 1915) relating to the membership of state banks in the federal reserve system. Provision is made for the entrance of state banks into the system at the Board's discretion, upon application, subject to various restrictions and conditions of examination. The two outstanding points in the circular are that it permits the withdrawal of state banks which may have become members, under specified conditions, and that it permits such state banks as become and continue members to exercise their statutory and charter rights after entrance into the system just as before. This means that they may continue to loan on real estate security without reference to the restrictions imposed upon such loans under the National Bank act, although the regulations provide that a state bank which becomes a member shall invest in such loans only to an extent which will not impair its liquid condition. The terms of the circular have been under consideration by the Board more or less continuously ever since the organization of the federal reserve banks, and are the outcome of many consultations with bankers and experts. Legal advice, also, has been sought in numerous quarters. While the interpretation of the provision of the Federal Reserve act concerning membership of state banks offers considerable difficulty, it is believed that the plan now proposed complies with the requirements of the law.

The question whether the admission of state banks with power to continue their real estate loans, and with permission to withdraw,

[1] Adapted from "Washington Notes" in *Journal of Political Economy*, XXIII (July, 1915), 717–19.

places them in a position of advantage which might subject the national banks to unduly severe competition, has been widely discussed, but it is thought that if such a danger exists it can be largely avoided by exercising adequate care with reference to the admission of banks to membership. No banks will be admitted unless they are sufficiently strong and well managed to insure their being effective working members of the system, conducting their business upon a high plane and observing all the requirements of sound management. While it is not intended to duplicate state examinations more than necessary, or to impose an undue burden of expense upon member banks, the Board's supervision is expected to be such as to insure the maintenance of stable and generally uniform conditions of competition among all the banks of the system, whether state or national. The circular and regulations provide for reliance upon state bank examinations to the fullest extent that is possible, and for the making of co-operative arrangements between state and national authorities with reference to such examinations. This will lessen the expense of overseeing the system, and will remove the possibility, which might otherwise exist, that state banks might be constantly under examination by various classes of examiners.

There has been no effort to forecast the number of banks that will probably enter the system in the near future under the provisions of the circular and regulations. The Board states in its circular that it is more concerned with the quality of the members than with their number; and it is prepared to see a slow, steady increase in the number of banks, each institution admitted being granted membership only upon satisfactory evidence that it will be a source of strength to the system.

It is probable that state bankers who have what to them seems good ground for postponing action will continue to find reasons for delay for some time to come, and will not bestir themselves to join the system until a fresh motive is afforded them for so doing. If the rediscount plan operates as it is expected to, state banks will get the benefit of it indirectly by finding themselves able to dispose of their paper on favorable terms in the open market without necessarily going to a federal reserve bank for accommodation. It is rather to be expected that the motive tending to lead state bankers to enter the system will be found in the clearing function. If the clearance provision in the Federal Reserve act proves successful, it may be expected that business will be transferred to the member banks by those who

will appreciate the immense advantage open to them as a result of the provision freeing them from the conditions to which they have heretofore been subjected in regard to domestic exchange.

163. A STATE BANKER'S VIEW OF THE FEDERAL RESERVE SYSTEM[1]

By FRANK N. BRIGGS

There are many reasons why state banks and trust companies should act with great deliberation in reference to entering the new federal reserve banking system, and I will undertake to mention a few of them very briefly.

First, the law is made for national banks only. Until it shall be so amended as to be helpful and not detrimental to state banks and trust companies they should remain out of the system.

Second, those entering the new system will probably be subject to double examinations, both state and national, double reports, conflicting laws, unusual expenses, and a curtailment of privileges now enjoyed under state laws.

Third, at the present time state banks and trust companies are able to supply needs in their various communities for the development and promotion of business that cannot be supplied by national banks. This then brings us face to face with the best protection of the public and the fullest development of the country. The new law appears to me to have been especially constructed and is now being administered largely for the benefit of big business and big undertakings. It has no functions thus far developed that appeal personally and directly to the small business man, merchant, small farmer, small stock-raiser, small manufacturer, or plain ordinary citizen. Of course, by aiding the large institutions the system will probably indirectly aid the small ones.

In the fourth place commercial paper is the great and important item to be used for rediscounts at the federal reserve banks. This can be issued and is issued only by large concerns moving great quantities of merchandise or products and receiving quick returns on the same in cash. Theoretically this is fine, but unfortunately all of the business of the country is not and cannot be turned over inside of thirty, sixty, or ninety days. There should therefore be some financial insti-

[1] Adapted from an address before the Colorado Bankers' Association, *Chicago Banker*, January 30, 1915, pp. 7–8.

tutions in the country that can take on at least a limited amount of such business which is sound, safe, and secure, but not as quickly liquid as the preferred classes mentioned in the reserve bank act.

Fifth, customers of country banks know very little about making statements, and it would be very difficult for a country bank to meet the "red-tape" requirements of the federal reserve banks when discounts are needed. A statement must be filed for the maker of each note offered for rediscount, certain application blanks must be filled out and filed, and a great deal of necessary routine gone through before a loan can be secured or paper rediscounted. I believe the small member banks and non-member banks must rely, as heretofore, largely upon their correspondents in the larger centers to supply them with funds as needed for emergencies. Fortunately, such banks do not need accommodations very often.

Sixth, it would be very dangerous to place the entire banking business of the country under the control of a federal board at Washington. No other free country that I know of has ever succeeded in forcing all banking institutions to come under absolute governmental control.

Is it not unwise to take on the risks and the obligations entailed by becoming members of the reserve system when it is not necessary to do so? While there are benefits and advantages to those banks that are members of the system, these are more or less counterbalanced at this time by the risks, curtailment of privileges, limitation of functions, added expenses, and other disadvantages offered by the system.

State banks and trust companies are in a very fortunate position, both for themselves and for their patrons, in being able to stand aside during the formative period—we might say the experimental stage—of the new national banking system and steady the financial ship while the national banks trim their sails and adjust their craft to suit the current of the new stream. These twenty thousand or more state banks and trust companies, remaining serene and undisturbed, are able to take care of their business in the usual way, co-operating at all times in a most friendly and patriotic spirit in bringing the new national system to its highest efficiency and most perfect state of usefulness.

164. THE ATTITUDE OF THE FEDERAL RESERVE BOARD[1]

By CHARLES S. HAMLIN

We are anxious that the state banks generally shall come into the system—some of them seem to be holding aloof and waiting. The Federal Reserve Board has done everything in its power to liberalize the regulations for the admission of state banks. I want to say frankly that this system has succeeded, and will succeed, whether the state banks come in or not, but the bigger the base the stronger the edifice, and I believe it highly desirable that all state banks join the system. About thirty of the large, strong banks have joined, and there is quite a waiting list now of those who desire to come in, but I want to make the prediction that if the state banks do not come into the federal reserve system, sooner or later they will have to establish a system of their own, and if they go to their state legislatures and ask authority, the first question will be: "Why have you not entered the federal reserve system?" Such a system would require special legislation in several states, and would require years to put through. I earnestly hope in the near future to see the state banks coming into the federal reserve system, and I want to hold out this thought to them, that if they come in now they will come in easily, because their assets are liquid; but the time may come when the state bank wants to come in quickly, and the bank may find its assets are not in a liquid condition and it will take time and trouble to get in.

Our regulations have been very moderate. We have interfered very little with the powers of the state banks. The state banks which come into the system can still loan on real estate when national banks have never been permitted to do that except to a limited extent under the Federal Reserve act. They can come in with all their branches and do business side by side with national banks that are not authorized directly to have branches. We even accept the examination of the state authorities where we find that those examinations are sound and good; that, certainly, is a great privilege for the state banks. We even have gone so far that we say to the state bank that, once in, you can withdraw on a year's notice; I think that is a privilege the state banks must appreciate. But we do not believe that one of them would look back to see whether the door was open or closed after it had once entered the system.

[1] Adapted from an (unpublished) address before the Western Economic Society, November, 1915.

Sometimes a bank president may say, "Why should a state bank come in, if it is true that the system is a great success and we can never have any more panics?" Now I think it is true that we will never have any more panics, but that does not mean that individual state banks will not have trouble in the future as they have had trouble in the past. And when they do come—for I believe there will be a long line of state banks at the first touch of stringency—then they must take the last place in the line to be examined, and it will take longer. But if you still ask, What use it is, because we can never have a general conflagration again? a man might just as well get up when there is a motion to put in a system of hydrants in a city, and say he read the other day the report that the hydrant systems over the United States are so efficient that the whole United States could now never be burnt up. I think that would be almost as sensible an answer as the one we occasionally receive. Now, when times of stringency and tight money come, banks will not be able to get the assistance outside of the system that they have previously secured, even from the national banks.

I believe, however, that this question will be largely settled by the customers of the bank. If a man were going into a small town to start an elaborate business, requiring much capital and credit, and he were to find two state banks there, one belonging to the federal reserve system and one not belonging to it, would it take that man, if he were prudent, long to decide where to put his deposits? I believe that the people of the United States in the long run will see to it that the banks they deal with sooner or later become members of the federal reserve system.

165. NEW YORK'S NEW STATE BANKING LAW[1]

By THEO. H. PRICE

In April, 1914, the state of New York passed a new bank act, designed for the most part to enable the state institutions to compete with the banks in the Federal Reserve system.

The most important of these changes in the law have to do with reserves and acceptances.

[1] Adapted from an article on "Commerce and Finance" in the *Outlook*, CVI (1914), 813–15.

In the matter of reserves the proposed changes follow closely the provisions of the Federal Reserve Bill. Under the new law the reserves required will be:

Location	State Banks	Trust Companies
In a borough with a population of 2,000,000 or over (i.e., Manhattan)	Reserve 18 per cent, of which 12 per cent shall be on hand and 6 per cent may be on deposit	Reserve 15 per cent, of which 10 per cent shall be on hand and 5 per cent may be on deposit
In a borough with a population of over 1,000,000 and not more than 2,000,000 and not having an office in a larger borough	Reserve 15 per cent, of which 10 per cent shall be on hand and 5 per cent may be on deposit	Reserve 13 per cent, of which 8 per cent shall be on hand and 5 per cent may be on deposit
Elsewhere in state	Reserve 12 per cent, of which 4 per cent shall be on hand and 8 per cent may be on deposit	Reserve 10 per cent, of which 4 per cent shall be on hand and 6 per cent may be on deposit, except that in cities of less than 100,000 population only 3 per cent need be on hand

At least one-half the reserves on hand shall consist of gold bullion, gold coin, gold certificates, or United States notes, and the remainder shall consist of lawful money of the United States or any other form of currency authorized by the United States. State banks and trust companies that become members of the Federal Reserve system may keep the reserves permitted to be on deposit with the Federal Reserve Bank.

Other reserve depositaries shall be designated by the Superintendent of Banking.

The reduction in the reserves for which the new law provides will undoubtedly work a great enlargement in the credit which the State institutions will be able to extend. In the provision which is made for acceptances the greatest possibility of credit expansion is to be found. In brief, this portion of the law permits State banks and trust companies to accept drafts on them and payable within one year.

The liability of institutions in the Borough of Manhattan on account of such acceptances for account of any one individual, firm, or corporation is limited to 25 per cent of their capital and surplus. Banks and trust companies elsewhere may accept the drafts of any

one individual, firm, or corporation up to 40 per cent of their capital and surplus. The drafts so accepted must be drawn in good faith against actually existing values, or, where they exceed 10 per cent of the bank's capital and surplus, may be, to the extent of the excess so authorized, secured by collateral having an ascertained market value that is 15 per cent more than the obligation against which it is hypothecated.

Under the new law State institutions may accept bills to the extent of 25 per cent to 40 per cent of their aggregate capital and surplus, "multiplied by the number of individuals, firms, and corporations who desire and can arrange for this form of credit."

The bill contains many other interesting provisions. One of these permits the formation of land banks with authority to issue debenture bonds against guaranteed real estate mortgages. Another imposes some rather drastic restrictions upon private and unincorporated bankers.

It is unnecessary, however, to discuss these provisions; they are chiefly of local interest.

The changes that are nation-wide in their importance are those that relate to reserves and acceptances. There is reason to believe that the other States of the Union have been awaiting New York's action in regard to its banking system and will speedily follow suit in changing their laws so that the State institutions throughout the country may compete with the increased facilities which the National banks will be able to offer under the Federal Reserve system.

The liberalization of the right to accept, for which the New York law provides, will enable the State institution to grant far greater facilities in this respect than the National banks can offer.[1] On the other hand, the State institutions that do not become members of the Federal Reserve system will be unable to avail themselves of the provisions of the Federal Reserve bill in the matter of rediscounts and Federal Reserve notes.

It seems probable, therefore, that the competition in the extension of credits which is almost certain to come when the two systems are fully organized will be one of rediscounts versus acceptances. The extent to which either or both of these means of credit extension shall be popularized and availed of will depend largely upon the education of the public as to their respective merits.

[1] This advantage has now been largely overcome by granting to Federal Reserve Banks the right of accepting domestic bills of exchange.—EDITOR.

In New York attempts are already being made to form one or two institutions with large capital whose business shall be confined to the purchase and sale of accepted bills.

The interdependence of the banks in the Federal Reserve system and the facilities that they will enjoy in the matter of rediscounts and the procurement of Federal Reserve notes will, of course, give them a great advantage in times of stringency, but during periods of monetary ease the State institutions will doubtless be able to attract much business now controlled by the National banks.

It seems altogether likely that during the transitionary period the competition between the State and Federal banks will be exceedingly keen.

The appeal of the Federal system will be in its National solidarity and the security which that solidarity implies, but the public will have to be educated to appreciate the importance of this factor.

166. THE TRUST COMPANIES AND THE FEDERAL RESERVE ACT[1]

In the process of carrying into effect the provisions of the Federal Reserve act, the Federal Reserve Board has encountered an unexpected difficulty. The Federal Reserve act in subsection (*k*) of section 11 provided that the Board might, when such action was not in contravention of state or local law, grant to national banks the power to exercise the functions of trustee, executor, administrator, and registrar of stocks and bonds. Regulations stating the conditions under which these powers might be applied for were not issued by the Federal Reserve Board until February 15, 1915, but, as soon as they had been placed in circulation, a considerable number of applications were at once filed. Trust companies in a number of states, and state banks in several others, believing that the competition to which they would be subjected by national banks, should the latter be vested with the right to exercise the desired powers, would be injurious, immediately undertook to secure action by state authorities designed to prevent the extension of the functions referred to. In several states legislation has already been enacted at the instance of state banks or trust companies, or both, prohibiting the exercise of such functions, and in several more there has been a refusal on the part of the state legislatures to enact any measure removing the existing disabilities

[1] Adapted from "Washington Notes" in *Journal of Political Economy*, XXIII (1915), 511–12.

from national banks and permitting them to exercise the functions referred to, should they be empowered so to do by the Federal Reserve Board. In other states the contest is still in progress and bids fair to continue active for a good while to come. On the other hand, a number of states, particularly in the West and Middle West, have already enacted enabling legislation under which national banks may exercise the functions authorized by the Federal Reserve act, subject to the supervision and control of the Federal Reserve Board.

The trust companies, recognizing that their opposition to the provisons of the Federal Reserve act in this respect has been in part ineffectual, have obtained adverse legal opinions and arranged to file suit designed to test the constitutionality of the provision in the act to which objection is thus taken. Such a suit will be designed to test the question whether Congress has power to grant authority of the kind specified to federal reserve banks or to any other corporation whatever, and, should the decision be adverse to the power of Congress, national banks would be unable to exercise the functions in question even in those states in which local law was favorable, and in which, therefore, it was manifest that the people were desirous that national banks should be empowered and authorized to do such work.

The point at issue is one which involves more than the mere business interests of the trust companies of the country, it being essential to the question whether or not the effort of the framers of the act to obtain a unification of the banking system shall or shall not be successful. The act, as is well known, provided for the admission of state banks as members of the federal reserve system upon a practical equality of privilege with national banks. In order to offset the favorable position thus given to state banks, and thereby to remove any incentive that might otherwise exist for national banks to surrender their charters and recharter under state law (becoming members of the federal reserve system at will, if so disposed), the Federal Reserve act granted them the trust company powers which are now under discussion. It was felt that by so doing national banks would be enabled to exercise some of the profitable functions heretofore exercised only by trust companies, and that under these conditions they could afford to bear the competition to which they would be subjected through the entry of trust companies into the federal reserve system, vested, as most of them are, with full commercial banking powers in addition to their other rights. To hold that the Federal Reserve act is unconstitutional in respect to the provisions cited

would produce a state of affairs in which, while national banks were subjected to the rigid regulations already applicable to them and were prohibited from engaging in trust business, the trust companies (already authorized to exercise so wide a range of functions) would be able to present themselves to the public as qualified to compete on equal terms with the national banks already in the system. This makes it evident that the real question at issue in the trust company discussion is the extent to which the Federal Reserve Board shall be permitted to proceed with its effort to harmonize and unify the banking system of the country by bringing about a general federation of all commercial banks under its jurisdiction. The Federal Reserve Board has, however, taken no part in the actual legislative discussion in the various states, contenting itself with merely announcing that it was in sympathy with the effort to give effect to the trustee and executor provisions of the Federal Reserve act.

167. DEPARTMENT-STORE BANKING[1]

Is "department-store banking" to be the final outcome of the forces now working toward increasing the functions that may be performed by national banks and the counterforces that would extend the powers of trust companies, if they are unable to keep their monopoly of trust powers? Will each little town that now has only a national or a state bank or a trust company possess in the future a single institution with all the functions of a bank, with those of a trust company added, a savings department, and a safe-deposit vault in the basement? If so, will not the inevitable tendency be to reduce all such institutions to the same basis and perhaps leave only one kind of bank, all in the Federal Reserve system and all under Federal supervision; in a word, all national banks?

These are the questions that some bankers have been turning over in their heads and discussing since the irrepressible conflict between national banks and trust companies over the question of trust powers has come to a head in New York State. Forces are at work, growing out of the enactment of the Federal Reserve Act, which tend to put all banking concerns on an even footing, making each bank not only that, but a savings institution and a trust company as well.

The provisions in the Federal Reserve Act empowering the Federal Reserve Board to grant to national banks trust company and savings bank powers, together with the provision for limited loans on real

[1] Adapted from "Department-Store Banking," *The Annalist*, V (1915), 234.

estate security, show a strong tendency to put all banks and trust companies on a common level, except for the advantages that inure especially to members of the Federal Reserve system.

Along with these considerations is the problem of getting the State institutions into the Federal Reserve system. Federal Reserve officials have admitted frankly that the system will not be fully successful unless the bulk of the 20,000 state institutions in the country, in addition to the 7,600 national banks, are brought into it.

168. THE FEDERAL RESERVE SYSTEM NOT A HARMONIZING AGENCY[1]

By A. D. WELTON

Fifty years of experience under a banking system which confused commercial banking with all other kinds and all other kinds with commercial banking has left what seems to be an ineradicable trace on the new banking system. National banks, facing competition from state institutions not subjected to similar restraints, have declined to welcome the provision which permits the Federal Reserve Board to confer trust company powers on them. State banks have objected to such an expansion of the powers of national banks, not because they have any particular fear that commercial banking will be contaminated, but they desire to keep the advantages they have over their competitors.

In most of the states the laws permit state banks to do all kinds of banking business, including the exercise of trust company functions. How this came about is not material. The important thing is that it came about and that it promotes the confusion of ideas about the various kinds of banking business. Theoretically and ideally commercial banks should confine themselves to commercial banking; trust companies should confine themselves to fiduciary matters, and savings business should be done by savings banks. Again, theoretically, if the various kinds of banking business are done by a single institution the departments should not be mixed up with one another. Practically, and because of the banking laws of the states and the apparent desire of bankers to engage in all branches of banking, reformation seems to be out of the question, but the situation contains no reason for permitting national banks to step outside of the field of commercial banking. The tendency to demand this and to permit

[1] Adapted from *Journal of the American Bankers' Association*, VIII (1916), 658–59.

it finds its impulse in the desire of national banks to compete on equal terms with state institutions. Moreover, in the towns and smaller cities there is not enough banking business of a single kind for one bank or trust company. To serve the community adequately one bank must do various kinds of business.

Instead of harmonizing the different kinds of banks and the different kinds of banking the Federal Reserve Act has apparently had the opposite effect. Rivalry between state and national banks is keener than ever and it springs from the difference in the laws under which they are organized. Efforts to have state laws modified so as to remove all doubt of their contravention by the application of section 11 (*k*) of the Reserve Act have intensified the condition. The state banks think they have more reason for not joining the system now than they had a year ago.

VIII

CO-OPERATIVE BANKING AGENCIES

Introduction

In previous chapters of this volume we have been considering banking in its relation to the world of business, the national and state banking associations being devoted almost exclusively to serving the interests of men engaged in the management of the larger commercial and industrial enterprises. There remain to be considered the banking requirements of and the banking facilities that have been provided for those classes of people whose incomes are small or who work for wages and who use the funds borrowed mainly for consumptive rather than productive purposes. We have already seen that loans on collateral may be used for consumption purposes, and that such loans are often extended by the regularly organized banks. We are here concerned, however, with loans to a class of people who cannot deposit as security collateral that is acceptable to banks—those who wish to borrow petty sums with which to meet temporary needs or emergencies.

The question of interest on consumptive loans is practically as old as recorded history. The Old Testament condemns all interest, except from foreigners, as being usury, and therefore unjust. The biblical law came to be incorporated into the civil code, and it was not until the beginning of the modern era that interest was legalized. The philosophy underlying this prohibition of interest appears to have been either a sympathetic regard for the poor or a recognition of the economic impossibility of their paying interest. Funds were borrowed at the time almost exclusively for consumptive purposes—virtually to prevent starvation—and such loans were necessarily almost in the nature of almsgiving. At any rate, to exact interest from a poverty-stricken peasant class seemed to violate every principle of common humanity. With the development of the borrowing habit by the capitalist class, however, the situation appeared in a very different light. When a borrower devoted the funds procured to productive industry, it was readily seen that he was making a gainful use of the loan and was therefore able to pay back the principal with a bonus, and also that the lender was foregoing a like

gainful use of the capital, and was therefore entitled to a recompense. Gradually loaning at interest became universally legalized; but even to the present day we find survivals of the old idea in the usury laws of the various states, which prohibit exorbitant interest rates, that is, above a certain prescribed maximum.

In our cities an extensive and enormously prosperous business has been developed in the making of loans to the poorer classes on the security of their current wages. While the risks in such a loaning business are great, the rates charged are often far higher than warranted by the conditions; and the poor have in fact been preyed upon by a class of dishonest dealers, who have taken advantage of the pressing financial needs and the ignorance of borrowers.

In recent years many institutions have been developed to remedy the evil of the loan sharks and to furnish funds to consumptive borrowers at lower rates. In particular, banks organized on co-operative principles possess many advantages in this connection. Such institutions have long played an important rôle in other countries, but it is only within recent years that they have been established in the United States; indeed, their development here can be said to have merely begun.

One form of co-operative institution, however—the building and loan association—is well developed in this country, and has long played an important part in accumulating the funds for home-building. Looked at from one point of view the building and loan association is a savings bank and its treatment might therefore have been reserved for the following chapter. It has seemed best, however, to include it here with the other forms of co-operative banking agencies; for in addition to being a co-operative institution its purpose is to save for consumptive rather than productive ends.

A. The Loan Sharks

169. THE SALARY LOAN BUSINESS IN NEW YORK CITY[1]

By CLARENCE W. WASSAM

A loan on salary is the advance of money by an individual or corporation to a salaried employee. The security given by the employee who obtains the money is an assignment of his wages due

[1] Adapted from *The Salary Loan Business in New York City*, pp. 21–41. (Publication of the Russell Sage Foundation. Copyright, The Charity Organization Society of the City of New York, 1908.)

or to become due. This transaction has been called a loan without security, which in reality it is. In practice, however, in the majority of cases the lender is in a secure position; he loans only to individuals who have steady employment, and whose employers will recognize an assignment. The loans are of small amount, varying from $10 to $35, and the borrower must have a weekly wage sufficient to pay the full amount in case the company is required to pay the lender. The attitude of different employers toward the assignment of the wages of their employees is a matter of careful record on the part of the salary money lenders. If an employer will discharge a man when it is known to him that he has assigned his salary, the employees of this firm are considered good risks. It may appear to be a contradiction of terms that a man in danger of losing his position will be a better risk than one who is not in such danger, but the explanation is simple. One of the chief points which all loan companies emphasize is that the transaction will be perfectly confidential, and that the employer shall never know of the assignment. When the employee has broken the rule of the company and made the assignment of his wages, then it is that the loan company threatens to notify the employer, and rather than lose a good position the employee will pay the charges demanded by the loan company. From a legal point of view this threat is of little value, but in practice it is most effective.

The loan companies do not rely entirely upon intimidation and fear in the collection of their money. They require the borrower to sign a bill of sale of his salary or authorize an attorney to do the same for him. In case the matter is brought before a court it is contended by the loan company that the transaction is not a loan of money but a purchase of salary, like the purchase of any other commodity; and since the transaction is one of purchase and sale there can be no claim of usury. In the majority of cases the loan company demands in addition to the assignment of the salary of the borrower the assignment of from one to three other employees. These assignments become effective if the borrower fails to meet his obligations.

A few illustrations will aid in the understanding of the transaction. A salaried man is in need of money. He has a good position and receives fair wages, but an emergency arises in which his income will not meet the demands made upon him and he is compelled to secure a small loan. He calls at a loan broker's office and applies for a loan. If his references are good and the firm by which he is employed has a rule prohibiting any employee from making an assignment of his

wages under penalty of discharge, the money is secured without difficulty. The necessary papers are signed, by which he agrees to pay a certain amount each week until the debt is canceled. If he meets the payments promptly, the transaction is closed, the borrower receives a receipt in full and his signature from the papers signed, and the documents themselves are destroyed. In case of failure to meet a payment when due, he is at once notified that his part of the agreement has not been fulfilled, that the promise of secrecy is no longer binding, and unless the matter is settled at once his employer will be notified. The danger of losing a good position is generally sufficient to force the payment of whatever the loan company demands. When the borrower is employed by a private concern whose attitude toward an assignment of the wages of an employee is unknown, or when the loan company for any reason questions the security offered by the borrower, from one to three endorsers are required as additional security. Should the investigation of the applicant and the endorsers prove favorable, the money is advanced. In this way the wages of several different employees become surety for the loan.

If for any reason the borrower defaults in his payments, within three days a notice of assignment is filed upon the employer for each of the assignees at the same time and for the same amount.

The reasons assigned for loans of this kind are numerous. It is the opinion of a prominent money lender in the city that about 75 per cent of the individuals who borrow from loan companies are men with families who are temporarily in need and are helped out of difficulty by a loan, and that 25 per cent are men who could get along better without the money, as it is spent in gambling, intemperance and vice. The managers of five different loan offices expressed the opinion that a majority of persons who patronize their offices are men with families who are honest and industrious, but who have met with some temporary emergency which the loan helped them to overcome.

Sickness or death in the home is perhaps the most common cause of temporary need. Another common cause is found in the custom of demanding rentals in advance. This, coupled with the expense of moving, frequently exceeds the savings of a household. It appears, also, to be a common practice among clerks and young employees to borrow a small amount of money when in need of a suit of clothes or anything which requires an unusual expenditure. Life insurance premiums, interest on mortgages, and similar obligations, Christmas

and birthday presents, are some of the less frequent but still not uncommon objects for which money is secured from the loan brokers.

It is extremely difficult to ascertain the number of salary loan offices in New York City. Some of them do not advertise and some advertise under different names. Thirty different offices, however, are known, and it is probable that the whole number is very much larger. Based upon the minimum number of offices there would be about $300,000 capital invested, which would make possible a business of $1,200,000 annually, if the loans were made for an average of twelve weeks. This is believed to be a very conservative estimate.[1]

The number of persons directly influenced by the loan business includes not only the employee but his family as well. Assuming that the average office has one thousand customers, there would be thirty thousand employees who are making payments every pay day to the loan companies. There are some duplicates included in this number, but they are more than overbalanced by the conservative estimate of the number of offices. Inasmuch as a large majority of those who borrow are married men with families, it is reasonable to conclude that at least one hundred thousand individuals in New York City are directly affected by the salary loan business.

The nature of the salary loan business necessitates a higher rate of interest than that charged by the ordinary banking corporation. In every state which has seriously attempted to regulate and not prohibit loans on salary the legal rate has ranged from 1½ to 3 per cent per month, depending upon the amount of the loan. It appears from the following data, however, that the rates charged by these companies are excessive and that the profits in the business are enormous.

Many instances could be cited to give an idea of the profitableness of the salary loan business. The owner of a prominent office in the city recently offered to guarantee a young man $10,000 net profit per year if he would invest $8,000 in an office. He said he was almost certain that the returns would be much larger. A careful examination of the books of one of the offices in the city showed that in one month a net gain of $541.00 was realized upon loans aggregating $1,889.00, a clear profit of 28.64 per cent in one month. Based on this rate of profit the annual net income from an office with $10,000 capital would be $34,368. An owner of two large offices in the city is authority for the statement that a friend of his began business in

[1] The number of loan offices as well as the volume of business has been substantially reduced in the last few years.—EDITOR.

New York City about three years ago with $25,000. Recently he was offered $60,000 for his three offices, and in the meantime he had placed $74,000 to his credit in the bank, making $110,000 clear profit, in addition to his living expenses, in three years upon a capital of $25,000. Several of the men who have a large number of offices and

TABLE SHOWING TOTAL CHARGES EXPRESSED IN TERMS OF AN INTEREST RATE, UPON SELECTED LOANS MADE BY ONE REPRESENTATIVE SALARY LOAN COMPANY

Amount of Cash Received by the Borrower	Payments			Total Amount Paid by the Borrower	Amount Paid in Excess of the Amount of Cash Received	Annual Interest Rate
	Amount of Each	When Due	Number			
						Percentage
$17.00.....	$ 2.00	Weekly	12	$24.00	$ 7.00	329
21.50.....	2.50	"	12	30.00	8.50	316
26.00.....	2.45	"	16	39.20	13.20	310
26.00.....	3.00	"	12	36.00	10.00	308
34.00.....	4.00	"	12	48.00	14.00	329
34.00.....	2.65	"	20	53.00	19.00	277
39.00.....	9.00	Bi-weekly	6	54.00	15.00	286
40.00.....	4.50	Weekly	12	54.00	14.00	280
40.00.....	20.00	Monthly	3	60.00	20.00	300

are doing a very extensive business began with a small amount of capital and have been in the business only a short period of time. It is the belief of a number of the employees of D. H. Tolman that he began the business of loaning money on salaries a few years ago with practically no capital, and today he is many times a millionaire with offices in all the principal cities of the United States and Canada.

170. EFFORTS AT REMEDIATION[1]

By ARTHUR H. HAM

The evil of the loan shark is bad enough in connection with the emergency borrowings of those in temporary distress; but it is made worse by virtue of the fact that many of the victims are victims of their own improvidence and extravagance. This is shown by the fact that the backbone of the usury business is furnished by city employees and employees of large public service corporations whose pay is regular and above the average, and whose positions are more

[1] Adapted from "Remedial Loans as Factors in Family Rehabilitation," *Proceedings of the National Conference of Charities and Correction*, 1911.

or less permanent. Many of these men have no cause to borrow except a fancied need to which the loan shark caters by his alluring and misleading advertisements. Once infected with the borrowing germ, a man will often borrow from every possible source till at last he gets into deep water, his family suffering as a result of his transactions and he himself finally becoming a veritable slave with his entire earning capacity mortgaged for months to come to the loan shark. Such conditions in our cities have brought about the organization of remedial loan agencies founded on three distinct bases: (1) philanthropic competition, (2) voluntary protective effort, and (3) money-making desire.

The first class includes semi-philanthropic societies which have been organized by prominent men desirous only of improving loaning conditions and who are satisfied with a very moderate return on their investment. An example is the Workingmen's Loan Association of Boston, established in 1888 by Robert Treat Paine.

The second class includes co-operative savings and loan associations organized by the employees of certain large establishments for the purpose of replacing the loan shark with an institution that offers loans at reasonable rates and affords an opportunity to the workman to deposit small portions of his earnings in a savings account which returns him an interest greater than that paid by regular savings institutions. An example of this is the Savings and Loan Association of the Celluloid Club, Newark.

The third class is made up of companies formed to loan money at reasonable rates by men seeking a good return on their investment and who recognize the value as an advertisement of a plan which, though largely money-making, is a great improvement over the loan shark system. Because of their effect we are forced to include the latter class among remedial loan agencies, yet we realize they fall far short of the requirements of the ideal remedial loan society which the Russell Sage Foundation and the National Federation of Remedial Loan Associations are attempting to organize in every large city in the United States.

Extending financial aid to applicants is only one of the functions of the Remedial Loan Society. It seeks also to secure adequate legislation and its enforcement, to give publicity to loaning conditions in its city, to secure settlements on an equitable basis for the victims of the usurers, to discourage ill-advised borrowing, to give helpful advice, to encourage thrift and saving, to secure employment for appli-

cants who are out of work, to fill the gap existing in our financial world between the banks and the organized relief societies. By extending relief to the deserving and by helpful advice the remedial loan association aims to prevent its clients from starting on the downward road which leads to dependence.

The remedial loan field extends to all families who by force of circumstances, by improvidence, by bad management, or by whatever cause have fallen below the somewhat vague line of normal standard of living.

The successful remedial loan agent must understand the needs and resources of each applicant, and keeping in mind the factors which go to make up a normal standard must thoroughly investigate the elements of each applicant's distress. Unnecessary borrowing is discouraged, legitimate borrowing is made inexpensive and a valuable experience to the borrower.

171. THE LOAN SHARK CAMPAIGN[1]

By MALCOLM W. DAVIS

The most extensive organization which is carrying on the work of driving the loan shark out of business at present is the National Federation of Remedial Loan Associations, with which the Division of Remedial Loans of the Russell Sage Foundation co-operates in gathering information and in publishing bulletins on the progress and phases of the work. Founded in 1909, this federation has grown until it embraces thirty-one of the important cities from the Atlantic to the Pacific Coast and has thirty-five companies in active operation. New York, Syracuse, Rochester, Buffalo, and Utica, N.Y., Boston and Worcester, Mass., Providence, R.I., Portland, Me., Newark and Paterson, N.J., Washington, D.C., Baltimore, Md., Louisville, Ky., Cleveland, Cincinnati, and Youngstown, Ohio, Indianapolis, Ind., Chicago, Ill., St. Louis and Kansas City, Mo., Detroit and Grand Rapids, Mich., Minneapolis, St. Paul, and Duluth, Minn., Milwaukee, Wis., Sioux City, Ia., San Francisco, Cal., and Seattle, Wash., are the cities already officially connected by companies, while in Dallas, Tex., Portland, Ore., Philadelphia, Pa., Lynn, Mass., and Colorado Springs, Colo., people are organizing companies, and in Jersey City, N.J., Dayton, Ohio, Los Angeles and Oakland, Cal., and San Antonio and Houston, Tex., they are actively interested and will undoubtedly

[1] Adapted from "The Loan Shark Campaign," *New York Evening Post*, April 11, 1914.

start companies soon. These companies generally loan small amounts of money on mortgage of personal property as security, although a few also accept pledges, endorsed notes, or salaries as a basis. The rates of interest vary from ½ per cent a month in a few cases to 3 per cent a month, with varying schedules of special fees for investigation of claims and registration.

What these companies have done toward putting the loan shark out of business may be indicated by the experience of one of them. The Detroit company started its work in 1906, after the passage of the Michigan law on loan agencies, and at that time there were over twenty-five loan shark companies operating in the city. For a time no effects of the reliable company's activity were discernible. Then suddenly things began to happen, and within half a year company after company closed up its office, until there remained only one concern which loaned money on salaries, and which was not complying with the law. There were two other companies which accepted the legal limitations, but the rest were put out of business directly through the efforts of the prosecuting attorney, whose first evidence was furnished to him by the remedial loan company.

A common practice among employers has been to adopt a rule discharging all employees who are found to be dealing with money lenders. The remedial loan associations have sought to and in many cases have succeeded in breaking down this practice by making the employers see that they were doing harm by turning their men out into the streets when they were found to have borrowed money without any investigation of the reasons for the borrowing.

In addition to fostering a new spirit among employers, an important part of the modern constructive campaign is the development of co-operative loan societies among employees themselves. This is one of the most effective ways of dealing with the problem of need for money in emergencies on the part of a man who is dependent on a salary. A great deal of the expense of an ordinary commercial company is avoided in the employees' associations, for the men know each other and the recommendation of a credit committee is sufficient warrant for a loan without the costly investigation of personal cases that a company has to make. The men themselves, contributing to the association and managing it, feel a pride in it, and are able to use it with dignity, while by making it a savings association as well, with an office in the company's building ready at hand when the men draw their pay envelopes, it can be made a powerful influence for thrift.

172. THE MORRIS PLAN OF LOANING ON PERSONAL RESPONSIBILITY[1]

There was established in New York on December 31, 1914, a bank under the name of the Morris Plan Company of New York. The Morris Plan had been tried on a minor scale for about fifteen years. The purpose of the bank is to make loans of small sums on the basis of mere personal responsibility.

It aims to accommodate the man of small income who has no bank account—that is, the man with an income of from twenty to thirty dollars a week. Such a man when in need of a loan of from fifty to one hundred dollars cannot get one from any bank merely on his note, even though his note be indorsed by one or more of his friends. One reason is the smallness of the amount—too little for the bank to bother with. And yet this poor man's note, with its indorsers, may be quite as good in its relation to the amount involved as the note of some much larger borrower who, having an account with a bank, can with no difficulty secure a loan of some thousands of dollars. The man with a small income when pressed for fifty or one hundred dollars finds his usual recourse to be the loan shark or a lender on chattel mortgages. A third recourse which ought to be open to him—that of credit at a moderate rate of interest—has long been closed.

On the opening day there were 83 applicants for loans, on the second day more than 100, the third day 200, the fourth day between 350 and 400, and on January 11 more than 1,000. During its first two months, January and February, the company made 509 loans, aggregating $61,780, an average of $121.38 each. At the end of that time there were but seven delinquencies in weekly payments, only two of which were for as long as one week. Of the borrowers, 476 were men and 33 women. The average weekly income of the borrowers was $27.10. The favorite amount for loans was $100, of which there were 206; 132 loans of $50 were made.

The number of loans made by all the Morris-Plan institutions up to December 31, 1914, was 54,515. The average amount per loan was $123.50. Losses from bad credits have been less than one-tenth of 1 per cent. In less than 2 per cent of the loans have the indorsers been called upon to pay anything. Profits of the banks have been at the rate of 7.8 per cent.

The plan of making the loans is simple. The applicant must furnish references as to his character and must give information as to

[1] Adapted from the *Literary Digest*, May 15, 1915.

his income. He must have at least two indorsers or co-makers of situation and income at least as good as his own. For each $50 borrowed he agrees to pay $1 a week for 50 weeks. The interest is deducted in advance, so that he receives but $47. Should he fail to make a payment on time he is fined 5 cents and notified of his delinquency. If he gets a week behind, his co-makers are notified. They may be relied upon to see that he catches up again if he can. Should he fail to do so, the co-makers take his place in making the weekly payments.

The profits of a Morris-Plan company are derived, not only from lending its capital, but also from lending the prepaid interest, the incoming payments and money corresponding to deposits—for the plan has its investment as well as its borrowing side.

B. Co-operative Institutions

173. CO-OPERATIVE CREDIT UNIONS[1]

BY ARTHUR H. HAM AND LEONARD G. ROBINSON

I. HISTORICAL SUMMARY

The number of co-operative credit associations or Credit Unions now in existence in all parts of the world has been estimated to be more than 65,000, with a membership approximating 15,000,000 and an annual business amounting to $7,000 000,000.

Impressive as these figures are, they are less striking than the economic and social results which this form of co-operation has achieved wherever it has found a foothold. It has regenerated and accelerated agriculture, commerce, and industry. It has stamped out usury and raised millions of human souls from the depths of despair to lives of hopefulness and service. It has supplanted shiftlessness by industry; improvidence by thrift; intemperance by sobriety; selfishness by neighborliness; individual effort by concerted action—in fact, has proved to be one of the most potent moral, educational, and social forces in the history of civilization and in the enrichment of the life of the common people.

Credit unionism originated in Germany in 1849. Frederick William Raiffeisen and Franz Hermann Schulze-Delitzsch were the founders of the two systems of co-operative credit which are commonly known as the Raiffeisen system and the Schulze-Delitzsch

[1] Adapted from *A Credit Union Primer*. (Division of Remedial Loans, Publication of the Russell Sage Foundation, 1914.)

system, respectively. All co-operative credit, wherever found, is patterned after one of these two systems.

It is estimated that the total number of Raiffeisen banks in Germany today is 17,000, with a membership of 1,700,000, and loans aggregating approximately $500,000,000. In 1911 the number of Schulze-Delitzsch banks was 1,051, with a membership of 671,589 and total loans of $1,106,165,207.

A modified form of the Schulze-Delitzsch system was introduced into Italy in 1866 and the Raiffeisen system in 1883. Austria followed in 1885 and France in 1892. Ireland has today over 200 co-operative banks. In 1909 Japan had 1,886 Credit Unions. They are found also in Russia and India. Canada founded its first Credit Union in 1900 and now has more than 150 organizations. Credit Unions of various types are known to exist in many of the countries of South America.

The wedge of credit unionism was driven into the United States by the enactment of the Massachusetts Credit Union Law in 1909. Since then legislation has been enacted in New York, Wisconsin, Texas, Oregon, North Carolina, Utah, and Rhode Island.

II. REASONS FOR DEVELOPMENT

The causes of the demand for Credit Unions in the United States are not far to seek. Under present conditions in many parts of the United States if the farmer needs new machinery, live stock, draft animals, or supplies to enable him to live until the time of returns from the harvest, he must buy upon credit at the dealers' prices or mortgage his farm. The absence of adequate credit facilities in some sections is one of the greatest drawbacks to the development of the land.

The need of better credit facilities for the small tradesman to enable him to conduct his business more efficiently and for the wage-earner when he meets reverses, sickness, or other urgent need, is fully demonstrated by the pernicious activity of the loan shark. One has only to glance at the records of small loan agencies to be convinced that by far the greater part of loans made, while they may be the indirect result of improvidence, are due to wants that are real and pressing. Not only is small borrowing often a legitimate and defensible procedure occasioned by emergency needs that lay a heavy hand upon the wage-earner, but it frequently is a prudent act committed in the spirit of economy. It enables a man to buy in large rather than

small quantities or for cash instead of upon the credit plan, which allows the instalment agency to reap an unconscionable profit at his expense.

Savings banks, building and loan associations, etc., do not fulfil the requirements of the situation, because they are not well adapted for the promotion of thrift among the poor. And thrift depends upon something besides the existence of a safe depository for surplus funds. In order to be thrifty many a man requires something more than agencies to receive his deposits and return them to him, when needed, intact with interest: he requires an agency which will make its hours of business conform to his convenience, which is conveniently located, which does not require him to stand in line for a long time awaiting his turn at the expense of his lunch hour and possibly of some of his employer's time; he requires an agency to which he is not ashamed to bring a dollar, fifty cents, or even a quarter; an agency which will constantly remind him of his resolution to save and which will reward his thrift by extending credit to him upon easy terms of repayment secured solely by his character and personal worth—credit which will enable him to effect economies in purchasing and embarking in productive enterprises, and will protect him from the usurer.

This is the field of the Credit Union. By its proximity and convenience it persuades the man who has not been reached by the savings bank to become thrifty, and this without interfering with the growth of ordinary banking institutions; instead, it actually increases the field of the banks. It makes the accumulated capital available to the persons who assisted in its accumulation. It does not become a substitute for the building and loan association or the remedial loan society; instead, it becomes a complement of these agencies, for the basis of the security for its loans is not collateral but character.

Character is a recognized form of security. Most borrowers possess such security and are entitled to credit upon this basis, but to ascertain the credit to which they are entitled requires a more or less intimate knowledge of their personal habits and of their financial and domestic situation. Credit Unions are formed on the principle that a man's best asset is his own associates' estimate of him. Their advantage is obvious. They are composed of a small homogeneous membership, mutually acquainted. Only those known to be honest and industrious are admitted to membership, and loans are made only to such members as have a legitimate need for the money.

III. PRINCIPLES AND ORGANIZATION

The main principles and most approved form of organization of Credit Unions may be outlined as follows:

a) FUNCTIONS OF A CREDIT UNION

1. It encourages thrift by providing a safe, convenient, and attractive medium for the investment of the savings of its members through the purchase of shares and the making of savings deposits.

2. It promotes industry by enabling its members to borrow for productive and other beneficial purposes.

3. It eliminates usury by providing its members, when in urgent need, with a source of credit at reasonable cost, which they could not otherwise obtain.

4. It trains its members in business methods and self-government, endows them with a sense of social responsibility, and educates them to a full realization of the value of co-operation.

b) BASIC PRINCIPLES

1. *Equality.*—All members share equally in privileges and ratably in profits.

2. *Democracy.*—The one-man-one-vote principle is fundamental. Each member has but one vote irrespective of the number of shares he may hold.

c) WHERE AND BY WHOM ORGANIZED

Any number of persons may combine to organize a Credit Union in a city, town, or rural community. In states that have Credit Union legislation a certain number of the incorporators must be citizens of the United States and of the state. Where a Credit Union is organized as an unincorporated or voluntary association this is not necessary.

d) BASIS OF MEMBERSHIP

The basis of membership in a Credit Union must be some common bond or community of interest. This may take a number of forms. It may be a neighborhood. It may be common occupation, employment by the same establishment, or membership in the same church, club, lodge, labor union, or other organization. In rural communities the church, parish, school district, or local grange furnishes a satisfactory foundation for membership.

e) QUALIFICATIONS FOR MEMBERSHIP

1. Identification with the basic unit upon which the Credit Union is founded—the church, the club, the business establishment, etc.

2. Good moral character and a reputation for honesty, sobriety, and industry.

f) CAPITAL REQUIREMENTS

1. Capital consists of payments of members for shares and of unpaid dividends credited thereon.
2. There should be no limit to total number of shares.
3. Limitation upon number of shares held by one person is wise.
4. Par value of $5.00 is desirable.

g) FUNDS IN ADDITION TO CAPITAL

A Credit Union may accept the savings deposits of its members, and may borrow from members and others.

Interest on savings deposits should not be more than 1 per cent in excess of savings bank rates in the community.

Borrowing by the Union is merely an emergency measure and should be employed only when absolutely necessary to meet the credit demands of its members.

h) EMPLOYMENT OF FUNDS

Except for the Guaranty Fund, which the law may require to be invested in a particular manner, the funds of a Credit Union are primarily to be used for the purpose of making loans to members. Surplus funds should be deposited in banks or invested in prime securities.

i) WHO MAY BORROW

All members in good standing, except the Board of Directors, officers, and members of the Credit Committee and Supervisory Committee.

j) PURPOSES FOR WHICH LOANS MAY BE GRANTED

"It is essential that a Credit Union should loan only for productive purposes, purposes that will effect a saving, supply an urgent need, or that will otherwise prove of benefit to the borrower."

k) RATE OF INTEREST ON LOANS

As a matter of principle the interest charged on loans should be no greater than is required to pay the operating cost, a moderate rate of interest on deposits, to provide for a reasonable reserve or guaranty fund, and to pay a moderate dividend on shares. It is well to fix the maximum interest rate in the By-Laws. This rate should as nearly as possible approximate the banking rate of interest. (In New York the maximum rate of interest that a Credit Union may charge is 12 per cent per annum.) Care should be taken that the total charges upon loans do not exceed the maximum allowed by law.

l) DURATION OF LOANS

The By-Laws may fix a general maximum, but the time of individual loans should be fixed by the Credit Committee with due regard for the nature of the employment in which the members are engaged, their ability to repay, and the objects for which loans are made. A maximum of one

year should be sufficient, even though it may be necessary at the expiration of that time to renew a portion of the loan.

Loans should be repaid in weekly or monthly instalments or in a single sum. This is to be determined in each instance by the Credit Committee.

m) SECURITY FOR LOANS

Ordinarily the security that a Credit Union demands for loans is the promissory note of the borrower with one or more endorsements, supplemented by a lien upon the borrower's shares and deposits in the Credit Union. The requirement of endorsements may be waived in some cases if the loan is for a small amount. Large loans may also be made to members upon security of mortgage of real or personal property, but unless the Credit Union has an abundance of funds, preference should be given to the smaller loans.

As a rule members only should be accepted as endorsers. In exceptional cases non-members may be permitted to endorse for members. In either case the endorsers must be acceptable to the Credit Committee. The Credit Committee may, if it deems it necessary, require additional security upon any loan in the form of additional endorsements, a mortgage, or other collateral.

174. THE BLESSINGS OF CO-OPERATIVE BANKS[1]

By HENRY W. WOLFF

Apart from the great gains on the economic side there are other important considerations. Co-operation has its moral, educating side as well, more beneficent than the economic. The training of this co-operative power has succeeded where other educating methods have failed, making the drunkard sober, the spendthrift saving, the ne'er-do-well well conducted, turning the illiterate into a penman. What an opportunity is there here for ministers of religion, for temperance advocates, for philanthropists, for all who have the people's moral welfare at heart!

Only we should do well to take to heart the teaching which we owe to the experience of People's Banks abroad, and ground our own institutions *absolutely* on self-help, the more thorough the better. Every dallying with greed, every yielding to the spirit of patronage, foreign experience has shown, adds a toe of clay to the huge brazen Colossus, and thereby threatens to overthrow it in spite of its size. And the thing must grow from out of its own self, from the bottom to the top. Committees and boards can do nothing. Large schemes

[1] Adapted from *People's Banks*, p. 260. (Longmans, Green, & Co., 1893.)

worked by public bodies are as much out of place. The workingman and the farmer must become "the instruments of their own emancipation." None of the systems that have succeeded abroad have been organized from above. They have all risen from below, built up by local association which, in submission to the advice pressed upon them by Signor Luzzatti, have studied to keep themselves independent of outside influence, self-contained, yet firmly connected among themselves by a bond of union—*independti semper, isolati mai!* Nowhere, moreover, has this work been "good fairy" work. Every shilling's worth of success has been purchased by unremitting application, by economy, gratuitous labor (so far as gratuitous labor was possible), zeal, and caution. And experience has shown that it is not otherwise to be obtained. There may be hindrances, and progress may at first appear slow. But among ourselves the work is likely to succeed, as it has succeeded abroad, under the principle of that apt motto chosen as a watchword for the movement by one of its best leaders, M. Léon d'Adrimont: "Vouloir—voilà le grand mot de las coopération, sa raison d'être, la garantie de son succès."

C. Building and Loan Associations

175. THE BUILDING AND LOAN MOVEMENT IN THE UNITED STATES[1]

By JAMES M. McKAY

Building and Loan Associations had their origin in England about one hundred years ago. The original association was nothing more or less than a home-builder's club, where each man paid into the common treasury a certain sum per month. The aim was to secure enough members to make the monthly payments aggregate a sum sufficient to build a modest home for one member. For instance, if the club had a hundred members and each member paid the equivalent of $10 per month, it would bring into the treasury a total sum of $1,000 monthly. This money would be allotted to one member after another for the purpose of buying homes, and the society would take a mortgage on the home so procured to secure the future payments, each member continuing to pay until all had been supplied with homes. The object

[1] Adapted from "The Building and Loan Movement in the United States," *Commercial and Financial Chronicle*, Bankers' Convention Supplement, 1906-11, pp. 213-15.

of the club having been accomplished, the association would dissolve and cease to exist.

At a very early period in the history of these associations the idea of shares was introduced. By means of these the man who wanted to invest more money, and thereby be enabled to build a better home than his fellow-members, could be accommodated. Thus if the ordinary fund to be allotted for building purposes was $1,000, a member could, by doubling his payment, receive an advancement of $2,000 and have his payments cease at the same time as those of his fellow-members. Or by increasing his payments 50 per cent, he could receive $1,500 to build his house, and other sums in like manner, the amount of money he could borrow from the society depending on the number of shares subscribed for. The face value of the shares would, of course, vary in different associations. In the eastern part of the United States, especially in Pennsylvania, shares of the face value of $200 each have always been the rule, while west of the Alleghenies $100 shares are common. In the matter of shares the Building and Loan Associations are directly opposed to the Mutual Savings Banks. These latter have no capital stock at all, while in the former, as a rule, there is nothing but capital stock, and the person who places his money in a Building and Loan Association does so in the payment of one or more of its shares of stock. Whenever his payments, with his share of the profits, make his stock worth its face or par value, the shares are said to be matured.

It will be seen from the very nature of the organization that regularity of payment for a series of years must, in some way, be secured, and in order to secure such regularity, a certain penalty or fine was assessed against members who became delinquent. The power of assessing fines was at first somewhat abused, but the present tendency is toward their gradual elimination altogether in some states. It would seem that regularity of payments might be accomplished better by adding an extra profit to the man who persists rather than by withholding part of the profits from the one who does not persist.

In the early associations there were various modes of determining who should have the right to borrow from the society. Practically all the members wanted to build and would be willing to pay the customary rate of interest for the funds, and there were always some who would be willing to pay more; hence the method which finally obtained the most favor was to put the money up at auction at the regular monthly meetings of the society and let the one who would

pay the most for the funds have the use of them. The amount that any member bid in excess of legal interest was called a premium, and as the premium went into the common fund and inured to the benefit of all the members, the legality of the premium has almost universally been upheld by the courts. In theory this was a fair and reasonable way to determine who should take precedence in the right to borrow, but it cannot be denied that premiums, like fines, became the subject of abuse and worked a hardship in many cases. The national associations that exploited the country from fifteen to twenty years ago seized on the fines and premiums as two important features of their system and made them the means of mulcting thousands of individuals throughout the country. Premiums, I am glad to say, are, like fines, a vanishing quantity. In principle there is no reason why a Building and Loan Association should charge either more or less for its money than other money-lending institutions are charging in the same community at the same time.

The payment of interest on the money advanced for home-building, the premium bid by members over and above the legal rate of interest, and the fines assessed against delinquents constituted from the very first a handsome source of profit to these associations; hence early in their history there were inducements to people to become members, not only for the purpose of acquiring homes, but also on account of the profits that accrued; and thus arose the two classes of members, depositors and borrowers, which still exist in every healthy, successful association. The introduction of the depositing member was in no sense a departure from the original purpose of the association, but was rather an additional means of securing the same end, as the depositing member paid into the common treasury the same amount in proportion to his shares that the would-be borrower paid, thus increasing the amount of funds to be allotted to home-builders and making it easier and speedier for them to get their homes. The investing or depositing member has always been an important factor in these associations, and in our crowded industrial communities today the chief problem of many associations is to attract enough depositing members to supply the demand for loans. In order to attract depositing members certain privileges are allowed in the way of withdrawal of shares before they mature, but while the depositor is a member he pays regularly on his shares.

In the early associations it will be seen that as soon as the last man was provided with the funds to build his home the object of the club

had been accomplished and the association was ready to disband. In like manner, after the introduction of the depositing member, the association ran a certain course and then would wind up its affairs, the investors taking their shares in cash, while the borrowers had their mortgages released and their homes freed from debt. These were called terminating societies, because in a certain definite sense their affairs were terminated. It was often found, however, that after the original association was started others in the community wished to become members at a later date. Originally this could not be done, and the only recourse was to form a new association; but as this was cumbersome and expensive, it was not long before associations were formed which allowed members to join at stated intervals, these intervals being sometimes a year apart, sometimes six months, and sometimes three months, according to the number of new members that could be secured. These were called serial associations, and each group of members constituted a series. Each series was in reality a terminating association, having its loans matured, the borrowers having their mortgages canceled, and the investing members receiving the value of their shares in cash. The serial association had many advantages over the terminating society; it became more of a feature of the community, better methods of accounting were introduced, and its officers became more experienced and, consequently, more competent.

About the year 1870 in the city of Dayton, Ohio, there appeared a modification of the serial plan, which has since become known as the Dayton or permanent plan. In the serial association the man who wanted to join at any time between the regular dates for opening a series must either wait until the next series was opened or he must pay back dues from the time the last series was opened. This was not always convenient or advisable, and the permanent plan allowed a person to become a member at any time and take as many shares of stock as he would. Each member could thus mature his own shares independently of anybody else, and each borrower could likewise pay off his own debt in the same way. Fines and premiums were reduced; more liberal provisions for withdrawals were made and members were permitted to retire at any time, taking their share of the net profit with them. The liberality of this plan appealed to the general public, and it has superseded the terminating and the serial plans almost entirely in Ohio, and many of its features are being adopted in other states. It is still a battle royal whether the serial

or permanent plan is the better, and arguments on this point occur at practically every meeting of the United States League of Local Building and Loan Associations. It is worthy of note, however, that while many associations have changed from the serial to the permanent plan, the writer has yet to learn of one that has changed from the permanent to the serial.

In every association, whether terminating, serial, or permanent, at certain stated intervals the profits of the business are ascertained. In the older associations it was the aim to keep these profits in a common fund until the time for final dissolution of the society. Any losses that occurred were paid out of these accumulated profits, and the payments of the members were continued until the amount of such losses was made up to the society again. At a later date, and largely for the purpose of accommodating withdrawing members, it became the custom to apportion the profits more or less fully among the members as a dividend. At first these dividends were usually declared annually, but now semiannual dividends have become the almost universal rule. In the terminating societies, however, a part of the profits is still withheld until final dissolution in order to safeguard against loss. Likewise in most serial associations the profits of each series are partly withheld until the series mature. In the permanent association, however, the society is secured against loss by means of a reserve fund, which is now obligatory in many states. Each association is required to lay aside a certain percentage of its net profits each year for this fund and the fund can be used for the payment of losses only. In this particular the associations are in line with the Mutual Savings Banks of New England and the East.

These associations form an important factor in the savings business of the country. They not only afford opportunity for the saving of small sums at regular intervals, but they enforce the saving of such sums as far as it is possible to do so. From a very modest beginning some eighty years ago their business has increased until now, according to the best information obtainable, their combined resources aggregate $850,000,000. Pennsylvania leads the list, both in the number of associations and in the amount of resources, with Ohio as a close second. Wherever there is a large class of wage-earners there is a good field for these institutions. An investigation of certain typical associations by the Department of Labor at Washington, some eight

years ago, developed the fact that fully 70 per cent of the membership is made up of working people. Hence we find them not only in the steel and iron mills of Pennsylvania, but also in the factory towns of Massachusetts, the cotton-spinning districts of the South, and the growing cities of the Great Northwest. In enabling people to provide homes for themselves these associations are rendering a service at once unique and invaluable. There is nothing that gives the average man or woman quite so much satisfaction as the possession of a few square rods of Mother Earth.

Wage-earning people are accustomed to pay rent, and it is not difficult for them to add a few dollars to the monthly rental and apply it on a home. Loans are made by the associations up to about two-thirds of the value of the property loaned upon, and such loans are usually repayable at the rate of one dollar per month on each hundred dollars borrowed, with the privilege to the borrower to pay more at any time. If the borrower should sell his property, the association will, as a rule, accept payment of the balance due and release the mortgage. If he does not sell, his regular payments will in time extinguish the debt. Paying a debt in instalments is like attacking an army in detail; you conquer one instalment after another until the whole debt is annihilated. On account of the great amount of clerical work involved, this form of loan has never found favor with banks and trust companies, but it does find favor with the wage-earning public. As a rule, the borrowers pay more than the required payments. Our own association makes a loan which allows the borrower ten years' time in which to pay his mortgage off, but the average duration of these loans with us is but little more than five years.

The Building and Loan Associations are managed by the members themselves, who convene at their annual meeting, choose their Board of Directors, listen to reports of the officers, and amend their own regulations when necessary. In this way a certain amount of business training is had which is not without its value. It has long been recognized by social workers that one cannot directly help people upward. All that can be done in such cases is to provide a way in which people can help themselves. The writer knows of no agency that furnishes to wage-earning people an opportunity for self-help equal to that afforded by a well-regulated Building and Loan Association.

176. LOCAL VERSUS NATIONAL ASSOCIATIONS[1]

By SEYMOUR DEXTER

There are two kinds of building and loan associations—the local and the national. There is a wide difference in their character, however, and the advantages lie altogether with the former. While the national associations have assumed the name of the true building and loan association, they are no more entitled to use it as descriptive of their business than a western farm mortgage and trust company or an investment and loan company. The name assumed is a misnomer except the word "national." While they have assumed some of the methods of the true building and loan associations, as a whole their manner of doing business is entirely unlike them; they have, as a rule, eliminated from their scheme the modes and principles by which the success of the building and loan association has been secured.

The true building and loan association is a comparatively small affair; its operations are confined to the place where located, or the immediate vicinity; most of its officers serve without pay; each shareholder can know what the association is doing from month to month, and upon what securities his money is being invested. The shareholders can attend the annual meetings and vote in person for the officers of their choice. There are no official places with salaries of sufficient amount to entice the scheming and crafty, and no paid solicitors for business to mislead the ignorant and unwary.

These elements of safety are eliminated in the national; the motive for their organization is to furnish business and gain to those who organize and conduct them. No capital is required to be invested in the business. Their operations spread in time over many states; the shareholders cannot know what the association is doing or how or where their money is being invested. They cannot attend the annual meetings and vote in person for officers; they simply intrust their money to strangers to handle on a promise that it will be returned at some time in the future with large interest.

Some of these associations will fall into the control of honest and capable men and be successful, but the greatest number will sooner or later come to failure and loss to the shareholders.

Whenever so fine a field of operations presents itself to the scheming and dishonest as the present system of the national building and

[1] Adapted from an address, quoted in *Bureau of Labor Bulletin IX*, pp. 1499–1500.

loan association, we may rest assured that the scheming and dishonest will enter it and pluck their victims until restrained by proper legal restrictions.

177. A FINANCIAL STATEMENT[1]

CASH RECEIPTS			
Cash on hand, April 1, 1915		$ 167.48	
Instalments "A"	$9,528.34		
" "B"	2,400.00		
Interest	3,074.32		
Premium	517.38		
Fines	17.00		
Loans repaid	2,750.00		
Expenses (rents)	25.00		
Real estate contracts	1,291.52		
		19,603.56	
Outstanding orders		3,166.80	
Total			$22,937.84
ASSETS			
Real estate loans and contracts		$162,809.42	
Stock loans		55,325.00	
Tax certificates		681.03	
Interest, taxes, etc., due and accrued		2,218.29	
Real estate owned by Association		628.14	
Office furniture		179.00	
Cash on hand		2,184.22	
Total			$224,025.10
CASH DISBURSEMENTS			
Outstanding orders, April 1, 1915		$ 2,099.08	
Loans	$ 2,750.00		
Instalments withdrawn	3,170.50		
Interest	238.50		
Expenses	858.04		
Real estate contracts	137.50		
Matured stock	10,800.00		
Contingent fund	700.00		
		18,654.54	
Cash on hand		2,184.22	
Total			22,937.84

[1] 165th Quarterly Statement of Peoples' Building and Loan Association, Chicago.

LIABILITIES

Instalments "A"	$174,611.56	
" "B"	7,425.00	
Surplus	29,916.10	
Contingent fund	8,905.64	
Outstanding orders	3,166.80	
Total		$224,025.10

178. THE APPEAL[1]

Do you know:

1. That there are 608 building and loan associations in the State of Illinois, with assets amounting to $90,572,343.45?

2. That there are 6,429 building and loan associations in the United States with assets amounting to the immense sum of $1,248,479,139.00?

3. That most of this huge sum is owned by people of small or moderate means?

4. That while banks have failed all over the country during the recent hard times the building and loan associations have stood like the rock of Gibraltar?

5. That building and loan associations can only loan money on improved real estate and only on first mortgages, making losses almost impossible?

6. That well-managed building and loan associations furnish the safest place of deposit and give a higher rate of interest than any similar investment?

7. That The Swedish Home Building Association has for nearly twenty years paid its depositors handsome dividends and furnishes an absolutely safe place for your savings?

[1] From Circular of The Swedish Home Building Association, Chicago.

IX

AGRICULTURAL CREDIT

Introduction

During recent years there has developed in this country an insistent agitation for the reduction of rates on agricultural loans and for an improvement of the general conditions upon which credit is extended to farmers. This demand for better agricultural credit is in a way the old agitation for more and cheaper money which lay at the basis of the greenback and paper-money movements of earlier generations. The general prosperity that began in 1897 and continued almost uninterruptedly for a decade had served to quiet for a time the discontent of the farming community. Abundant crops sold at constantly increasing prices had permitted many of the farm mortgages to be paid off, and thus indirectly the old source of complaint had been removed. But conditions must constantly improve if dissatisfaction is to be permanently allayed. While able to cancel their mortgage obligations, farmers came to realize that they were nevertheless paying high ("exorbitant") rates for money, and that their business was thereby relatively handicapped. The publication a few years ago of a number of rather striking articles, which indicated that farmers in many sections were paying from 8 to 12 per cent for money as contrasted with rates in our industrial centers of from 4 to 6 per cent, laid the basis for a very general feeling of unjust discrimination against the farmers. And when it was pointed out that in Europe farm loans may be had at rates of only 4 or 5 per cent, this feeling of injustice was of course greatly intensified. It was easy on the basis of these percentages to show that the farmers of the country were being compelled to pay annually many millions of dollars in unnecessary interest. Something must therefore be done.

After the reorganization of the national banking system, which serves mainly the larger industrial and commercial businesses of the country, the demand for legislation in the interests of agriculture became insistent. The reports of the different commissions that were sent to Europe to investigate agricultural credit there and the almost

innumerable conferences that have been held on the subject in the last four years have served to educate the country on the subject, while practical results are shown in recent legislation in numerous states, and in 1916 in a federal rural credit law of far-reaching importance, modeled after the Federal Reserve System. Our regular banking agencies, particularly the state banks, have also attempted to cultivate the farmer more assiduously than in the past, and to improve the ordinary banking facilities for agricultural loans. It begins to appear, therefore, that the farmers are achieving the end sought.

Much of the agitation on the subject has sprung from false assumptions or has been based on an inadequate grasp of the principles underlying the rates of interest on various classes of loans. For a time many proposals were advanced that the government should make loans direct to the farmers at rates of 1 or 2 per cent; but sounder ideas prevailed in this connection, and the advocates of self-reliance and self-help appear to have won the day. Again, there has very often been no distinction between loans for commercial and investment purposes, the rates to farmers for purely investment loans being compared with the rates to business for commercial funds. Similarly, there has been little analysis of the relative supply of available funds or of the varying risks involved in different sections of the country, rates in sparsely settled western states being contrasted with those of the central and eastern states where industry is further developed and where credit has been more or less standardized. But while the movement has thus been based in considerable measure on misconceptions, legislation on the subject fortunately appears to be proceeding in the main along conservative lines and undoubtedly will be productive of much good. Our farmers have suffered much in the past from the poor organization of agricultural credit, and the agitation will doubtless result in a substantial improvement in farm credit facilities. But perhaps an even greater gain will lie in the improvement of the credit *risks* of the farming class in consequence of the information that has been so generally disseminated with reference to the principles underlying sound credit.

The selections below are grouped under two headings: "Short-Time 'Commercial' Credit" and "Long-Time Investment Credit." Loans made to farmers for the growing or harvesting of crops are commercial in their nature. The funds may be liquidated out of the sale of the crops produced thereby, in much the same way that commercial loans to manufacturing or mercantile establishments are self-

liquidating. Our "commercial" banks have endeavored to supply such credit to farmers, and in the main they have given fair satisfaction. Perhaps the greatest improvement to be made in connection with short-time credit to farmers must lie with the farmers themselves; they must improve their credit risks if they would obtain credit on more favorable terms. The organization among farmers of co-operative credit unions such as those discussed in the previous chapter also offers possibilities in connection with short-time agricultural credit, though in the main farm life in this country is not well adapted to this form of organization.

The greatest problem of agricultural credit is in connection with the extending of long-time investment credit to farmers on the basis of mortgage security. While the character of the risk on loans for agricultural investment is frequently very bad, and while the cases of extraordinarily high rates are usually justified by the conditions, there has nevertheless been very inadequate organization of the farm mortgage business, and rates have been unnecessarily high, especially when the numerous incidental fees involved are considered. The development of mortgage associations and the use of the amortization principle will doubtless prove of great benefit on the investment side of agricultural credit.

A. Short-Time "Commercial" Credit

179. SHORT-TIME AGRICULTURAL LOANS IN THE UNITED STATES[1]

By EDWIN WALTER KEMMERER

The United States, although the leading country of the world in the amount of its agricultural products and in the extent of its banking business, is behind nearly every other progressive country of importance in the development of agricultural credit, i.e., short-time non-mortgage credit. Our manufacturing and commercial businesses are financed largely by means of such credit, and the capital invested in these industries is thereby rendered manifoldly efficient. Not so with agriculture. Most farmers apparently make little or no use of short-time credit. There seems to be a wide acceptance in this country of the dictum of Louis XIV, that "credit supports agriculture, as the

[1] Adapted from "Agricultural Credit in the United States," *American Economic Review*, II (1912), 852–63.

cord supports the hanged." Is this a correct description of the situation? If so, what is the explanation, and what remedies, if any, are needed? The object of this paper is to throw light upon the answer to these questions.

First, as to existing banking facilities for agricultural credit and their utilization by farmers. It is well known that the banking capital of the country is concentrated to a great extent in our large cities, to a greater extent than it would be if we had a well-developed system of branch banks like Canada, and that the banks of these cities are prevented by reason of their location from making many agricultural loans, even if they were so inclined. Of the 7,301 national banks in the United States on September 1, 1911, 192, or 2.6 per cent, were located in the dozen largest cities of the country. The national banks of these twelve cities, representing but 14 per cent of the population of the country, had 37 per cent of the national banking capital (capital, surplus, and undivided profits), 33 per cent of the individual deposits, and 40 per cent of the loans. It should be noted, however, that since the act of 1900, authorizing the establishment of national banks with capital of less than $50,000 in small towns, there has been a continual and rapid increase in the number of national banks in small communities. On September 1, 1911, out of the total of 7,301 national banks there were 1,966 with a capital of $25,000, and therefore presumably located in towns of less than 3,000 population, 372 with a capital between $25,000 and $50,000, and therefore presumably in towns of less than 6,000 population, and 2,297 with a capital between $50,000 and $100,000. Except for banks in towns not exceeding 6,000 population, the law as amended in 1900 does not permit any national bank to be organized with a capital less than $100,000.

Are the national banks which are accessible to farmers in a position under the law to meet the farmers' needs? The answer to this question must be in the affirmative. Aside from the fact that national banks are not permitted to make loans on real estate security,[1] there is no restriction in the national banking act which would interfere with loans to farmers for agricultural purposes. Personal security alone is legally acceptable; the range of possible collateral security is practically unlimited, and there is no limitation fixed by law as to the period of loans. National banks, therefore, have a very free hand in regard to loans to farmers.

[1] Note limited privilege of making such loans granted by sec. 24 of Federal Reserve Act.

When we inquire concerning agricultural credit in banks under state charters we find conditions varying with the different states; but, with a few minor qualifications, it may be said that the state banking laws are free from restrictions that would hamper state banks and trust companies in extending credit liberally to responsible farmers. They are in a much better position in one respect to deal with farmers than are national banks, that is, in the matter of accepting real estate security. No state denies this privilege, and such restrictions as exist upon its exercise are generally not onerous.

If commercial banks are comparatively unhampered by law in making short-time loans to farmers, it may be asked: To what extent are such loans made? Unfortunately, practically no information is available on this question.

So far as information can be secured, one gets but a confused picture of widely varying conditions as regards bank loans to farmers. Although the farmers in any section of the country may not resort to the banks for short-time credit, it does not follow that they are not receiving such credit. As a matter of fact they are often receiving it on a considerable scale and in the most expensive way, i.e., in the form of book credits with merchants. It is a common practice throughout the country for farmers to run up book accounts with local merchants during the spring and summer to be paid in the fall when the crops are sold. When this is done on any considerable scale the farmer probably pays more than bank interest under the guise of prices; and this is particularly true when he obligates himself to sell his crops to the creditor merchant. In the South this practice is carried to the extreme in the familiar "store lien" system, which holds many farmers in the cotton belt in a condition bordering on perpetual servitude. The custom is for the farmer to buy supplies of the local general store on credit for the year, agreeing to sell to the merchant his cotton crop in the fall, thereby canceling the debt. A crop lien is generally given, and the merchant often dictates the character and the amount of the planting. The prices paid for cotton under this system are liable to be exceptionally low and the prices paid by the farmer for his supplies exceptionally high. The system has proven a curse to many sections of the South.

The chief reasons for the backwardness of the United States as compared with Europe with regard to agricultural credit may be briefly summarized as follows: (1) our wonderful agricultural domain, where good land could be had almost for the asking, and where for

generations land was so cheap and labor and capital so dear that intensive cultivation was generally unprofitable; (2) the prosperity of our farmers, who have not been forced by dire necessity to resort to credit as were the farmers of Germany in the middle of the last century when the Raiffeisen co-operative banks were first organized; (3) the nomadic character of a considerable part of our agricultural population, as it has moved continually westward in taking up new lands, and more recently as it has been retracing its steps or moving northward; (4) the isolation of our farmers in this country of large farms and "magnificent distances"; (5) the rapid growth of manufacturing and commercial business of the country, and that largely in the hands of the same class of people who control the bulk of the banking business.

Add to these circumstances the obstacles which farmers always encounter in the matter of credit, as compared with manufacturers and merchants—obstacles such as the uncertainty of crops and the strongly seasonal character of the farmer's credit demands—and we have a sufficient explanation for the backwardness of agricultural credit in this country.

To emphasize most of these causes, however, is to brand one's self as belonging to a past generation. Our domain of free arable land is practically gone; good farms must be bought, and for them ever-increasing prices must be paid.

The era of hand cultivation is giving way to that of farm machinery propelled by horse-power and even by steam, gasoline, or electricity, with its resulting great increase in the efficiency of labor.

Another development which is making larger demands upon the farmer for working capital is the increasing use of artificial fertilizers, the expenditure for which in the United States approximately doubled from 1890 to 1900.

As the result of such tendencies of the rapid depletion of our free domain, farming in the United States is losing its old-time kinship to mining and becoming more like manufacturing. More and better machinery and more power are needed on most farms in the interest of efficiency. This calls for short-time credit.

When seeking credit the farmer can now offer better security than ever before. His markets are larger, better organized, more certain, and more accessible. The risk of crop failure is less, thanks to the wonderful progress of scientific agriculture. There are few pests which cannot now be readily controlled by the intelligent farmer who

takes time by the forelock. The problem of moisture is growing less serious every year with the improvements in irrigation, dry farming, and the more scientific diversification of crops.

If the time is ripe for a greater use of bank credit in agriculture, how is that credit to be obtained? Broadly speaking, four methods may be mentioned, only the last two of which are deserving of much attention at the present time. They are: (1) establish government agricultural banks; (2) adopt the Egyptian plan of a government guaranty to an agricultural bank established with private capital; (3) encourage the farmers to organize co-operative credit societies on some such plan as the Raiffeisen or Schulze-Delitzsch banks of Germany; (4) utilize more effectively in the interest of the farmer our present banking machinery, and improve it where it is defective.

180. PRESENT FACILITIES FOR AGRICULTURAL CREDIT[1]

In 1912 the United States Department of Agriculture in an endeavor to ascertain the present status of agricultural credit in the United States got out a questionnaire which was submitted to nine thousand interested parties in widely scattered sections of the country. Three thousand copies were sent to farmers, three thousand to country bankers, and three thousand to merchants. The conclusions reached may be summarized as follows:

I. *Percentage of farmers able to give good security or indorsed note for a loan:*
   a) Farm-owners—77 per cent
   b) Farm-tenants—46 per cent

II. *Percentage of above able to secure short-time loans:*
   a) Owners—48 per cent
   b) Tenants—26 per cent

On the whole, short-time loans appeared to be easier to secure than long-time loans.

III. *Would borrowers use funds conservatively and profitably?* Those who answered the question replied as follows:
   a) 26 per cent stated farmers would not make good use of funds
   b) 32 per cent said farmers would make good use of funds

IV. *Extent of crop liens:*
   A. Cotton
      a) Owners
         1. 7 per cent reported no liens on cotton
         2. 93 per cent reported as follows:
            (*i*) In 1902, 52 per cent placed liens on cotton
            (*ii*) In 1912, 42 per cent placed liens on cotton

[1] Adapted from *Report of United States Department of Agriculture* (1912), pp. 25–29.

b) Tenants
1. In 1902, 77 per cent placed liens on cotton
2. In 1912, 74 per cent placed liens on cotton

B. Other crops
a) Owners
1. 29 per cent report no liens on crop
2. 71 per cent report 24 per cent placed liens on crop
b) Tenants
1. 17 per cent report no liens on crop
2. 83 per cent report that 40 per cent placed liens on crops

V. *Extent of personal property mortgages:*
a) Owners
1. 17 per cent report no liens on live stock, farm machinery, or other personalty
2. 83 per cent report that 25 per cent do place such liens

VI. *Use of warehouse receipts (grain, tobacco, cotton, and other products)*:
a) 63 per cent stated that they do not exist
b) 37 per cent stated that 26 per cent of farmers use them for obtaining credit

VII. *Sources of credit:*
a) Local banks supply 57 per cent in communities where banks exist
b) Neighbors supply 16 per cent in communities where they contribute anything to the supply of credit
c) Individual lenders in near-by cities and towns supply 12 per cent where they supply any
d) Loan agents for outside capital supply 16 per cent in communities where such loan agencies exist
e) Local general stores supply 25 per cent in places where they supply any. Store credit, while rarely mentioned in discussions of rural credit, is very important. Reports show those having unsecured running accounts with local merchants as follows:
1. Owners, 59 per cent
2. Tenants, 53 per cent
It appears that owners get no store credit in only 1 per cent of the communities. In these communities 2 per cent of tenants do get it.
f) Unclassified sources, where they exist, supply 13 per cent. "It was reported by correspondents that in 1 per cent of the communities there was no supply of credit by banks; in 11 per cent of the communities no supply by neighbors; in 39 per cent of the communities no supply by individual lenders in near-by cities and towns; in 51 per cent of the communities no supply by loan agents for outside capital; in 47 per cent of the communities no supply

by local general stores, and in 93 per cent of the communities no supply from other sources

VIII. *Range of amounts of loans, not including purchase money:*
a) Owners, $274–$1,767
b) Tenants, $107–$473

IX. *Would they form co-operative associations?*
32 per cent reported that there are no farmers who would be willing to form such associations, but the remainder of the correspondents reported that about 40 per cent of the farmers stand ready to organize such co-operative associations.

The foregoing is a brief and highly condensed statement of the chief results of this investigation of local conditions relating to agricultural credit. Numerous variations from the general facts appear in the nine geographical divisions of the states, and still more so in the different states themselves.

181. REASONS FOR POOR CREDIT IN THE SOUTH[1]

By (MRS.) G. H. MATHIS

The reason for poor farming and poor credit in the South is primarily inefficient farming—the one-crop system, and laziness or idling away the time. The cotton crop requires a man's real labor for only 160 days in the year, but those 160 days are scattered along throughout the year, so that the laborer can't take up any other employment. He is really idle 200 days in the year. The average Alabama farmer earns $335 a year, and takes that on credit, three-fourths of it, and never sees the money, so when the end of the year comes he has only had his victuals and clothes. And of course he is lying down on the job all the time because he doesn't see anything in it. The system is wrong.

Now there is nothing on the face of the earth, in our climate or in our soil, that forces us into a *one-crop system.* We can grow anything on the face of the earth that will grow in the temperate zone. If there is anything that you can't grow there I don't know what it is. But still we do a whole lot of nonsensical things, and I will tell you what I have told the people of Alabama a good many times—it may not sound very nice, but it applies to us—and that is, we southern people can do more fool stunts to the square inch than any set of

[1] Adapted from an address before Farm Mortgage Bankers' Association, St. Louis, 1915, published in *United States Investor*, XXVI (1915), 1983–84.

people on earth. We just get right in our own way and keep a-standing there. Why, you would meet yourself coming and going. It is the truth.

Now, I will show you how ridiculous a great many of the things we do are. In the first place we send here to St. Louis, Chicago, and Kansas City, and we buy meat, ham, breakfast bacon, and all sorts of hog meat, and we pay anywhere from twelve to thirty cents a pound, and we can grow all we want at two and one-half cents. It is a fact. Get our agricultural bulletin and see that we can. And we send and buy beef and we pay all sorts of prices for it, ten, twenty, and sometimes forty cents a pound, and we can grow that same beef at four cents or less. And then we send out West and we buy hay, and we pay anywhere from $15 to $26 a ton, and $16 of that money is freight and goes to the railroad, and $4 goes to the middleman who handles it, and the fellow who grows the hay gets $6 a ton, and we don't care a cent who gets the money, just so we get rid of it. And we can grow that hay for $1.50 a ton. Now talk about us shipping hay into Alabama; why we can't hardly keep from growing hay. We have to work ourselves to death to keep from growing hay. We have to kill the grass to grow the cotton to buy the grass, and we are like someone going around on a merry-go-round; we haven't had time to see what else we could do. So, of course, that is another nonsensical position for us to take, and there is no sense in it at all. And when it comes to corn, we have got the world's record on corn beat. Alabama is the natural home of corn—two hundred and thirty-two and one-half bushels to the acre. Can you beat it?

Well, now, we can do most anything we will try to do. Our trouble is we do not try. That is clearly our trouble there. We have gotten off at a tangent. Oh, it is ridiculous, and distressing too. It would be very, very funny if it wasn't so awfully tragic for a great many of our people to be going off that way.

If we practice diversified farming and spend our time in work instead of idleness, we have no trouble. Farming is nowhere more profitable than in Alabama. I have seen it proved for many years that abundance of credit can be secured where people are using their brains and are working throughout the year.

182. PLANS FOR IMPROVING FARM CREDIT WITH LOCAL BANKS[1]

By C. W. THOMPSON

Three different plans are here presented by which farmers have improved their personal credit with local banks. Each plan has enabled farmers to borrow money at reduced rates of interest and on more favorable terms of repayment than usual. The loans secured under these plans were all used for the purchase of improved dairy stock. However, it is believed that similar arrangements would help farmers to improve their credit in connection with other farm enterprises, such as cattle-breeding and hog-raising, or in securing suitable farm equipment.

PLAN I

Under Plan I farmers enter into an agreement with local bankers or with other persons who supply the loans to adopt a uniform and approved system of dairy improvement. The security given by the farmers is not different from that ordinarily required. Those furnishing the funds also buy the dairy stock, usually under the advice of dairy specialists connected with the State or Federal Government. The stock is sold to the farmers at actual cost plus a certain percentage (say 2 per cent) to cover incidental expenses. The lender takes in payment the farmer's personal note with or without indorsement, or with mortgage security on the stock purchased.

Under this plan, as worked out in certain localities in North Dakota, the farmer has borrowed money on his personal note with interest at 8 per cent, whereas the usual local rate is 10 or 12 per cent. The notes were drawn for periods varying from six months to a year, but permitted renewals and partial prepayments on the principal.

The same general plan was carried out during the fall of 1912 with a group of farmers in southern Idaho. In that instance three or four banks took up the work together, each agreeing to finance a carload of dairy stock.

As a third example may be cited the work undertaken in a western Nevada community in the summer of 1913. Here the financial backers of a local creamery supplied the loans. The farmers gave indorsed paper together with mortgages on the stock purchased. The creamery withheld a part of the returns from milk and cream delivered.

[1] Adapted from *Bulletin 654–15;* Office of Markets and Rural Organization.

There are regions, however, where such arrangements are not sufficient to enable farmers as individuals to attract the necessary capital. Some additional security is necessary to what each farmer is able to furnish.

PLAN II

In the plan here described this additional security is obtained by having the farmers collectively assume a certain guarantee of the notes given by the members under the agreement. An illustration of how this has worked out is afforded on an irrigation project in southern Montana. Nineteen farmers organized an association in dealing with a local bank. The trustees were authorized to guarantee a limited amount to the bank on the joint and several liability of the association members. By adding this guarantee to the security offered by the individual farmers the latter were able to secure the necessary capital for the purchase of two carloads of heifers which were shipped in from another State in August, 1913. The local bank placed $5,000 to the credit of the association at 8 per cent, whereas the general bank rate is 10 per cent or, more frequently, 12 per cent. In this instance two men from the association were sent to make the purchase. After the stock had been secured, a proportionate share of all outlay, such as freight, travel, and incidentals, was added to the purchase price of each animal, and charges were made accordingly. As in the illustration given from western Nevada, provision was made for the periodic payment of the loans out of the dairy products. The articles of agreement also provided that the purchaser should give the animals proper care and breed them only in such a manner as the trustees might approve. Such safeguards are a desirable feature in any contract of this kind.

PLAN III

If, in place of the limited guarantee supplied by farmers themselves jointly, as described under Plan II, a similar guarantee from a third party be substituted, the essential features of Plan III will be the result. Such a plan was carried out in northwestern Wisconsin in the spring of 1913 and in northeastern Minnesota in the winter of 1914. The third party consisted of local business men who realized their common interest with the farmers in the general improvement of agricultural conditions in their territory. One agreement was made between the farmers and trustees appointed by bankers and another agreement between the trustees and business men. The latter sub-

scribed a certain percentage of the funds loaned, with the understanding that the money was to be a guarantee fund to protect the bankers. The first purchase made under this plan in northwestern Wisconsin included several carloads of dairy stock, the advances from the banks amounting to $9,475.

183. SHORT-TIME PERSONAL CREDIT AMONG JEWISH FARMERS[1]

BY LEONARD G. ROBINSON

Last year a poor Hebrew immigrant—let us call him X—bought a small farm in Nassau, Rensselaer County, New York. Ten years in a sweatshop had impaired his health, and he was advised by his physician to live in the country. By dint of pinching economy he had saved up $1,000. The farm he bought cost $3,000. He paid down his $1,000 and gave a first mortgage for the balance of $2,000 at 6 per cent. With a bare farm on his hands he turned to the Jewish Agricultural and Industrial Aid Society of New York. From that society he received a loan of $1,000 to equip his farm.

Everything seemed to go along fairly well. But in the spring, when in the midst of his plowing, X lost one of his horses. His first thought was of the aid society. Time was very precious, however, and every day counted just then. He therefore went to Y, from whom he had purchased his first team. Yes, Y would be glad to sell him a horse, but he must have at least half cash. X then went to Z, who, he knew, lent money occasionally to the farmers in the neighborhood. Z could let him have $50 for three months provided he signed a note for $75 at 6 per cent. X had no alternative. He took the $50 and bought a horse for $100, giving a note for the balance of $50 for three months, also at 6 per cent. It therefore cost X $26.88 for the use of $100 for three months, or at the rate of 107½ per cent per annum.

The following spring X again lost a horse. He saw three or four of his neighbors, and within an hour he obtained a loan of $100, for which he paid interest at the rate of 6 per cent per annum, or $1.50 for the same accommodation for which he had paid $26.88 only the season before.

What was it that caused the extraordinary change in this farmer's ability to borrow? The answer is *co-operative credit.*

[1] Adapted from "The Pioneer Credit Associations in the United States," *United States Bureau of Education Bulletin No. 30*, 1913.

While the Jewish Agricultural and Industrial Aid Society had long realized the need of short-time personal credit by the American farmer, it was not until 1909 that we were prepared to attack the problem in earnest. But the work has progressed with great rapidity, and we have today 17 thriving credit unions—the first and so far the only co-operative credit banks on American soil. Eight of them are in New York, five in New Jersey, and four in Connecticut. Three were organized in 1911, five more in 1912, and nine more this year. The eight credit unions doing business last year reported on December 31 a total membership of 251. Their outstanding shares ($5 each) were 865. They had been in operation for a period averaging 13 months, during which time they made 411 loans, aggregating $28,140, nearly seven times their share capital. Their net profits for this period amounted to $545.48, or at the rate of about 12½ per cent per annum on that capital.

One of the most marked benefits resulting from these credit unions is the virtual stamping out of usury in the communities in which they exist. The farmer, finding no difficulty in obtaining a moderate loan for productive purposes quickly and cheaply, no longer has to depend upon the generosity of his neighbors, the forbearance of the local storekeeper, or the cupidity of the usurer.

Not the least important is the moral and educational value of these credit unions. They teach their members business methods and self-government. They imbue them with self-reliance and self-respect. They endow them with a high sense of mutual responsibility, stimulate them to further efforts in the direction of co-operation and mutual self-help, and make them better farmers and better citizens.

184. THE ARGUMENT FOR DIRECT GOVERNMENT LOANS TO FARMERS[1]

By E. R. BATHRICK

The argument for direct loans to farmers by the government is based upon two fundamental propositions:

First, the conservation of agriculture, and, as a legitimate corollary, the perpetuation of the food supply, is a vitally important national policy, and so considered by all nations. I think we can agree on that.

[1] Adapted from *Testimony at Joint Hearings before the Subcommittee on Banking and Currency*, 63d Cong., 2d sess., 1914, pp. 865–86.

Second, this important national policy, so vital to all our people, should not be relegated to a few private people for exploitation and profit.

This much being agreed upon, I contend that the safest and best way to carry out this policy for and on behalf of the people of the Nation is for the Nation to do it itself. Private persons do not act with patriotic deference to public needs in the conduct of business where their investments and livelihood are at stake. No exigency could be greater than the failure of agriculture, and no greater danger to the existence of government could arise than a short food supply. No tenet of free government can quiet a hungry people, and, in the face of such a contingency, the true government philosophies would avail nothing. We do not stand close to such a condition now, but we face the steadily rising price of food, whereby many of our people are confined to a pitiful selection of edibles. The condition as it applies to production and consumption of food is bad enough, and we shall not fulfil our best functions as legislators if we fail to choose the speediest and most efficacious remedy. Every leading nation on earth is lending money procured by the sale of its bonds, or appropriations from its tax funds to farmers, either directly to the borrower or through mutual credit associations. Many of the nations, either by Federal Government or by provincial or State government, are guaranteeing bonds or debentures issued against farm mortgages. From my research of authentic public documents and official reports I have compiled a total of expenditures of this character wherein the "faith and credit" of these governments were pledged to the extent of nearly $5,000,000,000.

My proposition is that the Government borrow money at not to exceed 3½ per cent and lend it to farmers direct or through farmers' farm-credit associations, and not through capitalists' farm-credit associations. I would not ask a law preventing anybody from lending money to the farmers. I do not desire to confine lending to farmers; but if we will pass a bill which is a combination of farmers' self-help and Government aid, the capitalist lender will follow our terms and interest rates without any law made for him at all. It is the experience all over the world that joint-stock mortgage banks will go into the business at the lower rate. With organizations made up of farmers the Government can encourage self-help and co-operation among farmers. But the capitalists can help themselves, and in a farm-credit bill it is not the province of Government to encourage

capitalists and assist them to make money out of agriculture. By my bill we could force or rather assist the farmers in helping themselves on both long- and short-time credit.

We would have mutual organizations for the purpose of carrying out the national policy, but when you have an organization that is gotten together solely for the purpose of making profits for city investors we can neither carry out the national policy nor have warrant for doing anything for that kind of an institution.

We would not lend on every application. We would only lend upon those who are willing to comply with our regulations respecting the use of the money for agricultural purposes and for the purpose in other ways to carry out the national policy. We, as a Government, would not go into the loaning business to make money, although it would be very profitable to all the people. It is the history of all countries that if we were to do this thing that I ask to be done, in the way I propose, joint-stock companies would, without our intervention and without any law of our making, follow our rates of interest, and the whole mortgage problem would soon be solved. If we were to stop, the rates would immediately rise, but we should need only to keep the Government plan alive to hold rates steady all over the country.

Government loans would make a profit in two ways for all the people. One way would be a cash profit from the margin on loans. This cash profit would be sufficient annually without taxing the people a penny to pay the entire cost of maintaining and constructing good roads under the Shackleford good-roads bill, that is, $25,000,000. The other profit would be also for all the people and expressed in a widespread beneficence affecting not only agriculture but everybody in the city as well. It would be giving these profits first hand and direct by the quickest and best way it can be done and not by the slow indirection of relegating our great national policy to the mercies of profit-seeking banks.

The bank plan will make a profit for a few people, mostly for those who have been lending money to farmers at high rates and who have created these very conditions we are trying now to cure.

B. Long-Time Investment Credit

185. FARM MORTGAGE CREDIT IN THE UNITED STATES[1]

By C. W. THOMPSON

During the past two years the Department of Agriculture has been making a special study of rural credits in the United States. Information has been obtained bearing on both the conditions and the facilities for supplying farm loans in the different states. I shall endeavor to indicate briefly some of the results of this study with special reference to farm mortgage credit.

The average cost of farm mortgage loans, for interest and commission together, as indicated by a recent inquiry made by the Office of Market and Rural Organization, ranges from about 5½ per cent in New York, where commissions are seldom charged, to 10 per cent in Montana, where the commission amounts to about 1½ per cent, with 8½ per cent interest. In Iowa, where the farm mortgage loan business is pretty well standardized, the average cost for interest and commission together is 5.9 per cent, comprising 5.6 per cent for interest and a commission paid once for all in advance. In Missouri the average cost for these two items is 6.8, comprising 6.2 per cent for interest and 0.6 per cent for commission. In Texas the average cost for interest plus commission is 9 per cent, with a little more than ½ per cent going for commission; and in Alabama interest and commission together average nearly 9½ per cent, of which ¾ per cent is for commission.

In the State of Iowa there is relatively little variation from the average rate, 6 per cent, the lowest figure reported from any locality being 5 per cent interest with no commission charged, and the highest figure, for interest plus commission, about 8 per cent. From Texas, on the other hand, with an average of 9 per cent, we have reports from different localities giving the prevailing cost for interest plus commission as low as 7 per cent and as high as 13 per cent; and from Alabama, with an average of 9½ per cent, reports ranging from 7¾ to 15 per cent. In general, the lowest charges both for interest and commission are found in the more developed agricultural sections of the East and Middle West. The extreme figures apply in the South and the Rocky Mountain states.

[1] Adapted from an address before Farm Mortgage Bankers' Association, St. Louis, 1915, published in *United States Investor*, XXVI (1915), 1994–95.

The most common term for farm mortgages throughout the corn belt is five years, with a good many loans made for three years and some for as long a time as ten years. In the South the greater part of the farm mortgage loans made by banks from their own funds are made for one year or less; loans made by insurance companies and mortgage companies in the South, however, usually run for a longer period—from three to ten years. In the Rocky Mountain and Pacific states farm mortgage loans appear to be made rather more often for a term of three years or over than for a shorter period, but the banks at least make a considerable portion of their loans of farm mortgage security for a period of one year or less.

The great majority of the banks making farm mortgage loans for a term of three years or over give the borrower the privilege of paying any part of the principal (in even hundreds) at any time or on any interest date. Some banks, however, lend at a lower rate of interest where the contract does not carry the prepayment privilege. Most of the banks, both in the South and in the West, which make farm mortgage loans for one year or less report that they usually renew satisfactory loans when desired; some of them require the payment of a part of the principal, but the majority seem to be willing to renew the whole amount so long as the security is good.

A general survey of conditions in the country as a whole would seem to indicate that charges for interest and commissions are needlessly and unreasonably high in many localities. Farmers in these localities are clearly in need of better access to the open investment market. Such access would not only afford more reasonable rates but would also enable the farmer to obtain mortgage loans for longer periods than is ordinarily possible at the present time.

Farm mortgage loans are obtained, in general, from four important sources, namely, banks, life insurance companies, mortgage or loan companies, and private individuals. A word may be said with regard to the relative importance of these agencies.

From reports furnished by the twenty-seven life insurance companies in the United States having assets above $20,000,000 and two-thirds of the smaller companies we have computed the amount of farm mortgages held by these companies in each state, the total for all states being $660,000,000. We have also estimated the amount of farm mortgages held by banks (including trust companies), and, on the basis of the thirteenth census figures, the total amount of farm mortgage loans outstanding in each state.

For the United States as a whole the life insurance company mortgages reported up to the present time (October 5, 1915) represent about one-fifth of the estimated total for all farm mortgages and the mortgages held by banks a little more than one-fifth. The reports yet to be received from some of the smaller companies, however, promise to bring the insurance company total up pretty close to the estimated bank total.

For the State of Georgia the figures show that the insurance companies hold farm mortgages amounting to nearly one-half the estimated state total and the banks a little more than one-fourth, leaving only a quarter of the total for mortgage companies and private individuals. In a majority of the other southern states the insurance companies are relatively unimportant as sources of farm mortgage loans, though they have made considerable gains in this section of the country even within the last two years.

For the State of Iowa the insurance company mortgages represent 32 per cent of the estimated total and the bank mortgages 22 per cent; for Missouri the insurance company mortgages represent 26 per cent and the bank mortgages 16 per cent. In Nebraska and Kansas, however, the insurance companies are more important as compared with the banks, reporting in each case more than one-third of the estimated total, while the banks report only a little more than one-twentieth. In Oklahoma, likewise, the insurance companies report nearly 40 per cent of the total and the banks only about 3 per cent, and in Texas the banks have only 6 per cent of the total, as compared with 18 per cent for the insurance companies. In Louisiana and in California, on the other hand, the banks take care of more than 40 per cent of the estimated total farm mortgages, while the insurance companies report less than 7 per cent.

Life insurance companies hold very few mortgages on farms in the New England or the Middle Atlantic states; and a considerable portion of the farm mortgages held by the banks in some of the New England states, at least, are mortgages on western lands.

No definite information is at hand relative to the amount of farm mortgages permanently or temporarily held by mortgage and loan companies, but the aggregate is without doubt very large. A number of foreign companies are engaged in this business on a large scale. Many mortgage companies are primarily mortgage brokers or commission merchants, but many also have large funds permanently invested in farm mortgages.

The activities of the mortgage and loan companies as middlemen, purchasing or negotiating mortgages for sale to other investors, have already been mentioned. The banks, likewise, in many localities negotiate large amounts of farm mortgages for insurance companies and other outside investors, in addition to making loans from their own funds.

The banks in North Dakota, for example, which hold farm mortgages to the amount of $5,000,000 (estimated), negotiate for other investors about $40,000,000 in a year, or eight times their own permanent holdings. The banks in Nebraska, likewise, are estimated to handle $33,000,000 in farm mortgage business for other investors, or three times the amount of their permanent holdings ($11,000,000). In general, the banks in most of the states west of the Mississippi River engage rather extensively in the business of handling farm mortgages for other investors. New England banks, on the other hand, do practically no business of this kind, and the other states in the northeastern section of the country do relatively little. In the South, likewise, outside of the states of Georgia, Oklahoma, and Texas, the volume of such business handled by the banks is relatively small.

186. RATES ON FARM LOANS[1]

Substantially no statistics of rates of interest paid by farmers have been collected in this country since the census of 1890; and consequently it was especially desirable that in the questionnaire sent out by the Department of Agriculture the correspondents be requested to contribute information on this investigation and report with regard to the subject. Six questions were framed, and these were answered with undoubted understanding as to the meaning of the questions. The results are of much interest.

The questions were expressed in dual form in such a way as to call for an answer for agricultural loans and also for loans on town and city real estate, the circumstances of the loans being otherwise substantially the same.

The interest rates on the bulk of the purchase money throughout the United States range from 6 to 8 per cent in the case of farms, and also 6 to 8 per cent in the case of town and city real estate. Upon taking account of the differences in rates of interest as between farm

[1] From *Report of United States Department of Agriculture*, 1912, p. 30.

and town property, it is discovered that in the case of purchase-money loans 10 per cent of the responses state that the rates are higher for farms than for town and city real estate; 33 per cent report that the rates are lower for farms than for town and city real estate, and 57 per cent report that there is no difference in rates of interest on purchase-money loans between the two classes.

Rates of interest do not determine the total cost of borrowing. There are commisions, bonuses, and various costs and expenses that are borne by the borrower, and these, if added to the rate of interest, often considerably increase it. It was reported by 22 per cent of the answering correspondents that no commissions were paid in their communities; those who stated that commissions were paid disagreed very considerably. The country banker stated that the rate of commission, when paid, was 2 per cent. The country merchant and persons of other occupations constituting another class of correspondents reported 4 per cent, and the farmers reported 5 per cent. These differences seem hardly capable of reconciliation. The terms for which mortgages are made usually range from 3 to 5 years, and consequently a commission of from 2 to 5 per cent adds appreciably to the annual rate of interest. If paid by the borrower, the average cost of abstracts was $11.40; where borrowers paid conveyancer for drawing papers the cost was $4.70. In 94 per cent of cases the borrower does pay cost of abstract. Sometimes the borrower was required to pay the registration fee, and, when he did so, the average cost was $1.50.

187. EXPLANATION OF HIGH RATES TO FARMERS[1]

By H. S. VAN ALSTINE

A year or two ago the Kansas Legislature appointed a commission to investigate farm values and rural interest rates, and their report is very enlightening. It shows that the average rate in the eastern counties is from 5 to 6 per cent, while the average rate in the extreme western counties is about 10 per cent.

Now this difference in rate is not because the money lender is taking advantage of the necessities of the western Kansas farmer, but is based wholly upon the value of the land as measured by the yardstick of experience.

[1] Adapted from an address before Farm Mortgage Bankers' Association, St. Louis, 1915, published in *United States Investor*, XXVI (1915), 1968–69.

The man who wants the maximum security is willing to accept the minimum interest rate, and lends his money in those localities where the intrinsic value has been established by years of cultivation and permanent settlement, while the money lender who wants a higher rate risks his money on loans secured by lands in newer and less tried localities, where the hazard and the rate are proportionally greater. Statistics of other states show the same tendencies. In 1880 the average rate in Iowa was 8 per cent, and in 1905, 5.18 per cent. It is probable that the high average rates indicated by the reports of the Federal Government are largely accounted for by the high rates prevailing in western and southern localities now in process of development. Also the high commissions indicated would perhaps not appear unreasonable if the local conditions, the size of the loan, and the quality of the security were analyzed. It often requires as much work to negotiate a small loan as a large one, which makes the commission on the small loan appear high in comparison with larger loans.

188. THE WEAKNESS OF THE PRESENT MORTGAGE SYSTEM[1]

By C. W. THOMPSON

Under the present system of marketing farm mortgages the mortgages themselves are generally sold direct, so that it is necessary to find a purchaser who wants a mortgage of a given amount, running for a given time and with given terms. This fact renders farm mortgage investments less attractive to the small investor and also the large investor who wishes to have his capital in such form that he can readily turn it into cash on occasion, since the mortgages, drawn for varying amounts and falling due at different times, will sell less readily in the open market than would standardized securities.

The farmer himself is not generally in a position to find a purchaser for his own mortgage. He lacks proper contact with the investment world. He does not know the facts regarding securities in which the investor is interested. Neither can he draw up loan papers and pass on titles. Convenient facilities are necessary to perform all these functions. Reliable and suitable standards must be maintained in these matters. To this end the selection of farm mortgage loans must

[1] Adapted from an address before Farm Mortgage Bankers' Association, St. Louis, 1915, published in *United States Investor*, XXVI (1915), 1995.

be placed on a strictly quality basis. The farmer with security of superior quality must not be compelled to pay commissions and interest rates similar to those charged his neighbor whose security is much inferior. A sound credit system must put a premium on mortgage security of superior quality. It is for the latter class of mortgage loans that adequate provision should be made in order that they may reach the open investment market. So long, however, as farm mortgage loans are offered for sale in their original form there will be a large body of investors who cannot be reached. To meet the demands of this class it is necessary, not only to supply mortgage securities of superior quality, but also to offer them for sale in the proper form. Farm land bonds offer these advantages as compared with the original mortgage notes: The bonds may be issued in even amounts; they run for convenient periods of time; they afford a convenient means for collecting the interest, and they relieve the investor of all concern as to the keeping up of the farm land security.

189. LEGAL OBSTACLES PREVENT A WIDE MARKET FOR FARM MORTGAGES[1]

By H. M. HANSON

Farm mortgage bankers, who are familiar with the farm mortgage investment laws of the eastern and New England states, have long cherished the hope that the lawmakers of those states might be educated to lean more leniently toward the farm mortgages of other states as investments for the funds of their estates, trust companies, and savings banks. To introduce, or reopen, the subject the association has sent out more than 1,200 letters to bank commissioners, trust company and savings bank officials, legislators, and others in the East, setting forth the association's point of view and to acquaint itself with eastern sentiment on the subject. The results of this effort are not at all discouraging.

190. THE TROUBLE WITH THE AVERAGE FARMER[2]

By A. L. ROGERS

Dear Professor: I have filled out the inclosed questions to the best of my ability and according to the manner in which agricultural credits have been handled in this section. The system has been changing year by year since the pioneer days of twenty-five years ago, land

[1] From *United States Investor*, XXVI (1915), 1967.

[2] Taken from Bullock, *Agricultural Credit*, pp. 112–14. (H. W. Wilson Co., 1915.)

values are becoming more settled, the possibilities of safe farming are becoming more definite, and therefore interest rates are gradually getting lower as speculative conditions disappear. This is, at present, a one-crop wheat-producing country; one-half the land is summer fallowed each year; consequently there is but one pay-day each year, and the farmer gets his credits on that basis. The whole system is inefficient and uneconomic. Very few of them have made much money outside of the rise in values of their land. They are all farming on too big a scale. Under the present system they are destructive as hell in their methods. They are going into debt buying more land, gas traction-engines, and 10-bottom plows. No rotation or diversification of crops, just wheat, wheat, wheat; simply mining the soils and selling the surface of their farms. The greatest trouble with the average farmer is he is getting too much credit; and the bankers and merchants are due some consideration and also some condemnation in taking long chances in their desire to help the farmer and develop the country, even though they do it with the idea of making a profit. One great trouble is the American farmer is not an agriculturist, but a speculator in lands; he values the soil to exploit it, and not for its true producing qualities. I need no better proof of this assertion than statistics from the Middle and New England states, where you can buy farms for less than the costs of improvements on them. I know plenty of men of wealth who would be glad to make farm loans at 6 per cent on twenty-five or fifty years' time under the amortization plan of retiring the principal and interest, but men of capital hesitate in taking chances on the ignorant, shiftless, and speculative methods of the average American farmer; the land would be worn out before the mortgage becomes due.

There is an immutable law in loaning money: the greater the risk the higher the rate; and whenever the American farmer qualifies himself and his conditions the same as the German and French farmer has done he will get just as good accommodations, but not until then. Under the laws of compensation most everyone gets what is coming to him. The rich man gets his ice in the summer and the poor man gets his ice in the winter, but they all get ice. A bunch of farmers came into my office the other day kicking on the rates of interest. I informed them that not one of them was a genuine farmer; they were simply speculators; they demanded loans up to almost the actual value of the land, based on their earning capacity; they expected to scratch around on the surface of the ground to make expenses and no

improvements, hoping and expecting that some sucker would come along in a year or two and give them twice what they paid for it. The money loaner expects and demands the highest rate of interest he can write when he goes into that kind of a partnership. I further informed these gentlemen that there would some day be an agricultural people living in this section who would be entitled to a very low rate of interest, but those people would not come to the market in an automobile; they would stick to the dead axle wagon, and every time they came to town it would be loaded with something to sell, and when they went home they would haul back a load of manure to strengthen their collateral, so that their land would be worth as much when the mortgage became due as it was the day it was written, and thereby justify a demand for lower rates of interest. A farmer to make money has got to learn to tote both ways, but the biggest load must go toward the market. The wheat farmer works hard two months in the spring and two months in the fall, and the balance of the time he sits around kicking the grain man, the transportation man, the middleman, and the banker, when he should be milking cows and feeding hogs and doing diversified farming, thereby maintaining the fertility of the soil and having something to sell when he comes to town to buy his supplies. The silo will make a dairy country out of eastern Washington and double the values and producing qualities of the land. Some of the farmers are waking up to this fact, and more will follow later on.

Long-time loans secured by mortgages on land should not be made except for the purchase price or permanent improvements on same. The farmers of this section can, at all times, get any reasonable amount on their lands on three or five years' time at 8 per cent, with a privilege of paying $100, or any multiple thereof, on the principal at any interest-payment period, and all papers generally become due in the fall, after harvest, for their convenience. So much for long-time credits.

191. THE LEGITIMATE PURPOSES OF MORTGAGE LOANS[1]

By EDMUND F. ADAMS

The purposes for which mortgage loans may be safely granted, and, therefore, for which only they should be granted, are, first, land; second, permanent productive improvements, such as ordinary

[1] Adapted from "Credit Facilities for Rural Districts," *Sound Currency*, VIII (1901), 167–68.

fencing, drainage, or irrigation; third, buildings required for the shelter of crops and stock or dwellings required in conducting the necessary operations of the farm, and such as the owner could and would buy if they were not on the farm and he could obtain them. No farmer ought to borrow money to build a fine house, or expensive furniture, or ornamentation, and no banker ought to lend it to him for those purposes. It is risky to lend to pay off floating debt, except such as has been caused by sudden calamity. The fact that a farmer desires to build a house beyond his means or that he has incurred a floating debt which he cannot pay is warning that he is unthrifty, and, therefore, unlikely to meet his engagements. He cannot expect to borrow at low rates. If in any case this is not true, the burden of proof is on the borrower. All mortgage loans are unsafe whose proceeds are not so applied to the property pledged as to increase its income-producing power. A loan to build a hotel would be proper and safe when a loan of the same amount to build a fine farmhouse on the same property would be improper and unsafe. Loans to a soil-robbing farmer have always in them an element of danger, because the land is constantly deteriorating. The safe limit of a mortgage loan on farm land is such that the interest charge can be paid with one-half the annual rental of at least five years, with covenants to protect the land from deterioration from soil robbing. It is to the interests of both borrower and lender that mortgage loans shall be made on very long time, but always payable at the option of the borrower, at any time, by instalments or otherwise. For loans, either mortgage or temporary, made under the restrictions here outlined, there is and always will be abundant capital available at rates of interest which farmers can pay, provided only that farmers induce the enactment of such legislation as shall make the flow of capital natural and inexpensive. For all hindrances, annoyances, or unusual difficulties in enforcing payment, or overtaxation, the borrower must pay, as well as for all risks which he creates by speculative operations. The laws of many states enacted with the approval of farmers, so drive capital away from them that they can hardly get it at any price.

The purposes for which mortgage loans are actually employed in this country are stated in the mortgage volume of the *Report of the Census of 1890*, pages 279, 280, and 896. The following extract will give some idea of the variety of purposes:

"People mortgage their real estate to get married, to obtain divorces, and to pay alimony; to pay their taxes, to pay rent, and to

pay the money-lender. They raise money by mortgage in order that they may travel and that they may expend it in extravagant living; they speculate with it and they re-lend it. Politicians pay their political debts by means of mortgages. The guileless are deceived into buying worthless patents. Wives pay the debts of their husbands and educate them for the ministry. Men mortgage their real estate to pay their physician, their undertaker, and their lawyers, to help their friends and relatives, to make good their defalcations, to educate their children and support their parents."

Of course money for such purposes must be well paid for, but while there are many such loans, the great majority, of course, are for proper business purposes. The census experts group some of the foregoing and many others into a class which they term "Calamity Loans." They estimate these as 5.40 per cent of the number of mortgage loans and 1.95 per cent of the amount.

192. AGRICULTURAL CREDIT INSTITUTIONS[1]

By R. B. VAN CORTLANDT

Our present system of borrowing on land is by mortgages running from three to five years, the entire principal coming due at one time. This is expensive, involving renewals, and dangerous from the possibility of the mortgage falling due at a time of restricted credit, so that it cannot be renewed. On the continent of Europe this business is handled by so-called land-mortgage banks, or rather associations. These associations are formed along varying lines, some with stock like the great French institution, the Crédit Foncier; some having no stock, like the German Landschaften; some being guaranteed by a state or province, as in Austria, while the principal one in Hungary combines ingeniously various features peculiar to itself. These institutions are formed along certain general fundamental lines as follows:

The mortgages granted are pledged for the security of bonds which the institution issues and sells in the general market. These bonds have no fixed maturity, but can be retired at par or some small premium at any time. When the borrower mortgages his land to the bank, he agrees to pay a certain fixed sum semiannually. This is called the "Annuity," and is composed of the annual interest plus an amount, generally one-half per cent, toward the reduction of the principal of the debt and known as "Amortization," and an additional

[1] Adapted from *North American Review*, CXCIX (1914), 585–88.

amount, about one-quarter per cent, toward the expenses of the bank. The borrower, therefore, at once begins to extinguish the principal of the debt, and as each year the principal decreases, the interest, of course, decreases also, and the annuity being fixed, the proportion of it applicable toward the extinction of the mortgage increases. Thus it happens that, beginning with a payment of one-half toward principal, the mortgage bearing 4 per cent to 4½ per cent, which are the general rates, the entire debt is extinguished in between fifty and sixty years.

The borrower has the right at any time to pay off the mortgage, a small penalty being generally exacted; but the lending institution cannot require payment from the mortgagor, thus guarding against any higher rate of interest being exacted during the life of the loan; whereas, should interest rates fall, the borrower can anticipate the payment of the mortgage and secure the benefit of the lower rate of interest. If payment of a mortgage is anticipated, or when the semi-annual payments are received by the bank, it enters the market and buys or retires a corresponding amount of its bonds, so that its outstanding bonds never exceed in the aggregate the total of the mortgages it holds against them. This has the advantage of making a constant market for the bonds, and there is no necessity of sinking funds for special mortgages, as they are under a general pledge. These banks do not compete with commercial banks.

193. AN AMORTIZATION LOAN[1]

An amortization loan is illustrated by the table on pp. 391, 392.

At the end of the thirty years the borrower has paid, in principal and interest, $2,100. Under the ordinary plan the borrower of $1,000 at 5 per cent would have paid out $2,500, exclusive of commissions and legal expenses, which are saved under the Woodruff plan.

There are other advantages of importance also. Each semi-annual payment is so small that the average farmer can borrow the amount necessary from his local bank if he is temporarily out of funds. As the amount of each payment will in no case exceed 1¾ per cent of the value of the land, he should always be able to meet the payments out of current proceeds of the land itself. On any interest date the farmer is allowed to make partial payments on the principal, thus shortening the duration of the loan.

[1] Taken from circular describing plan of the Woodruff Trust Company, Joliet, Ill.

AMOUNT OF LOAN, $1,000.00. LENGTH OF TERM, 30 YEARS. RATE OF INTEREST, 5 PER CENT. SEMIANNUAL PAYMENTS, $35.00.

Semiannual Periods	Interest at 5 Per Cent	Paid on Principal	Expenses and Profits	Total Semi-annual Payment	Amount of Principal Still Unpaid
1.....	$25.00000	$ 7.35400	$2.646	$35.00	$992.64600
2.....	24.81615	7.53785	2.646	35.00	985.10815
3.....	24.62770	7.72630	2.646	35.00	977.38185
4.....	24.43455	7.91945	2.646	35.00	969.46240
5.....	24.23656	8.11744	2.646	35.00	961.34496
6.....	24.03362	8.32038	2.646	35.00	953.02458
7.....	23.82561	8.52839	2.646	35.00	944.49619
8.....	23.61241	8.74159	2.646	35.00	935.75400
9.....	23.39387	8.96013	2.646	35.00	926.79447
10.....	23.16986	9.18414	2.646	35.00	917.61033
11.....	22.94026	9.41374	2.646	35.00	908.19659
12.....	22.70492	9.64908	2.646	35.00	898.54751
13.....	22.46369	9.89031	2.646	35.00	888.65720
14.....	22.21643	10.13757	2.646	35.00	878.51963
15.....	21.96299	10.39101	2.646	35.00	868.12862
16.....	21.70322	10.65078	2.646	35.00	857.47784
17.....	21.43695	10.91705	2.646	35.00	846.56079
18.....	21.16402	11.18998	2.646	35.00	835.37081
19.....	20.88427	11.46973	2.646	35.00	823.90108
20.....	20.59753	11.75647	2.646	35.00	812.14461
21.....	20.30362	12.05038	2.646	35.00	800.09423
22.....	20.00236	12.35164	2.646	35.00	787.74259
23.....	19.69356	12.66044	2.646	35.00	775.08215
24.....	19.37705	12.97695	2.646	35.00	762.10520
25.....	19.05263	13.30137	2.646	35.00	748.80383
26.....	18.72010	13.63390	2.646	35.00	735.16993
27.....	18.37925	13.97475	2.646	35.00	721.19518
28.....	18.02988	14.32412	2.646	35.00	706.87106
29.....	17.67178	14.68222	2.646	35.00	692.18884
30.....	17.30472	15.04928	2.646	35.00	677.13956
31.....	16.92849	15.42551	2.646	35.00	661.71405
32.....	16.54285	15.81115	2.646	35.00	645.90290
33.....	16.14757	16.20643	2.646	35.00	629.69647
34.....	15.74241	16.61159	2.646	35.00	613.08488
35.....	15.32712	17.02688	2.646	35.00	596.05800
36.....	14.90145	17.45255	2.646	35.00	578.60545
37.....	14.46514	17.88886	2.646	35.00	560.71659
38.....	14.01791	18.33609	2.646	35.00	542.38050
39.....	13.55951	18.79449	2.646	35.00	523.58601
40.....	13.08965	19.26435	2.646	35.00	504.32166
41.....	12.60804	19.74596	2.646	35.00	484.57570
42.....	12.11439	20.23961	2.646	35.00	464.33609
43.....	11.60840	20.74560	2.646	35.00	443.59049
44.....	11.08976	21.26424	2.646	35.00	422.32625
45.....	10.55816	21.79584	2.646	35.00	400.53041
46.....	10.01326	22.43074	2.646	35.00	378.18967
47.....	9.45474	22.89926	2.646	35.00	355.29041
48.....	8.88226	23.47174	2.646	35.00	331.81867
49.....	8.29547	24.05853	2.646	35.00	307.76014
50.....	7.69400	24.66000	2.646	35.00	283.10014
51.....	7.07750	25.27650	2.646	35.00	257.82364

AMOUNT OF LOAN, $1,000.00. LENGTH OF TERM, 30 YEARS. RATE OF INTEREST, 5 PER CENT. SEMIANNUAL PAYMENTS, $35.00.—*Continued*

Semiannual Periods	Interest at 5 Per Cent	Paid on Principal	Expenses and Profits	Total Semi-annual Payment	Amount of Principal Still Unpaid
52.....	6.44559	25.90841	2.646	35.00	231.91523
53.....	5.79788	26.55612	2.646	35.00	205.35911
54.....	5.13398	27.22002	2.646	35.00	178.13909
55.....	4.45343	27.90052	2.646	35.00	150.23857
56.....	3.75596	28.59804	2.646	35.00	121.64053
57.....	3.04101	29.31299	2.646	35.00	92.32754
58.....	2.30819	30.04581	2.646	35.00	62.28173
59.....	1.55705	30.79695	2.646	35.00	31.48478
60.....	.86922	31.48478	2.646	35.00	0.00000
Totals..	$941.24	$1,000.00	$158.76	$2,100.00	

194. EUROPEAN SYSTEMS NOT NEEDED IN THE UNITED STATES[1]

BY HENRY WALLACE

What can you do for the landowner in such states as Iowa or Illinois? Frankly, I don't see anything you can do that you are not doing already. In Iowa, for example, loans on farms range from 5 per cent to 5½ net, probably 6 to the farmer. When farmers in these states quit investing in outside states they will take care of their borrowing neighbors on a smaller margin of security than you will and will eventually put you out of business.

The local banker, and often without expense, lends to the farmer and takes a mortgage. The larger bank in the city takes it off his hands, or the insurance companies East and West. In fact, these companies are now eager for mortgages at 5 per cent net to them. In short, with two-thirds of the banks in Iowa owned or at least controlled by farmers, it seems to me that they have about all the credit they need.

The rate of interest might be reduced 1 per cent, if it were practical to organize landschaften in these corn states. In fact, we can readily see how a few large landowners, by combining their credit and increasing it by becoming mutually liable for the debts of their organization, might secure a reduction of 1 per cent per annum. With our mixed population, however, this is not practical. The average loan in Iowa —and I presume it is so in Illinois, eastern Kansas, and Nebraska— is about $4,000, and the average farmer would gladly pay $40 a year

[1] Adapted from *United States Investor*, XXVI (1915), 1986–87.

for liberty to do just as he pleases with the money, without asking the advice or consent of his neighbor. He would regard independence as cheap at that price.

What can be done for the tenant? Nothing that I can see until the tenant becomes a somewhat permanent fixture in the community. And he will not become a permanent fixture so long as he is renting on a short lease, nor until his relations with the landlord are such that he can take root in the community and become part of the social order. You cannot build a high civilization, nor any other thing, on a shifting, changing population. When our population becomes stable, as the populations of the older countries have become, and when landlords and tenants are better acquainted with each other and have become parts of the social system, it may then be possible to organize credit associations under the Raiffeisen system, by which money can be secured at lower rates and for longer periods than now. For then it will not be so much a matter of importance what a man has as what he is.

The poorest of the poor in the congested districts of Ireland can borrow money from their credit banks at as low a rate as the best farmer in Illinois and Iowa, but it is in the small amounts suited to his needs, and because of limited or unlimited liability and supervision by a committee. That time may come with us, but it is not now.

Can you imagine an Iowa farmer, even as a renter, allowing a committee of his credit bank to determine whether the investment he proposes to make of the borrowed money is a good investment for productive purposes, whether he buys cattle at the right price, feeds or cares for them properly, and when he shall sell them?

What many farmers want is facilities for getting in debt. What they need is facilities for getting out of debt. If mortgage companies can provide a form of mortgage that will extend the time of payment from five years to ten, fifteen, or twenty, it would be a mighty help to men who have borrowed $50 to $100 an acre on lands in the corn belt.

195. A BETTER LEASING SYSTEM NEEDED[1]

By HENRY WALLACE

Cheap money, as it is proposed to furnish it on land security, would simply increase the speculative fever and boost farm lands until they would not pay 1 per cent on the investment. We have

[1] Adapted from a letter to *Commercial and Financial Chronicle*, XCVII (1913), 1082.

entirely too much speculation now. Nor would it help the renter, comprising about 40 per cent of the farmers, a little bit, he having no security to offer.

Ex-Secretary James Wilson and myself spent two months in Great Britain last summer making an investigation of agricultural conditions there.

The farm-credit systems of the Old World will not do here at all, at least not now or in the near future, for the reason that they involve unlimited liability, and, furthermore, on short-time loans require supervision of the farmer who seeks the loan. They are a splendid thing for the poor farmers in the Old Country, who are forced by circumstances to assume unlimited liability, to limit loans to productive purposes, and to require supervision by a committee of the association.

Imagine a western farmer having a committee decide whether he ought to buy a cow or not, to see that he buys the right kind of a cow, gets her at the right price, and then feeds her right. Imagine an Iowa farmer in order to secure a loan having a committee see whether or not he should buy a lot of feeding steers, and then see that he feeds them on the most approved methods. Neither would the western farmer consent or be liable for the debts of a "landschaften association." It is doubtful if he would do so even to the extent of his own borrowing.

The real trouble with the western farmer is with our leasing system, which in the majority of cases is simply a conspiracy between the landlord and the tenant to rob the land and divide the loot. In the Old Country the government provides for the maintenance of soil fertility by giving the tenant the right to recover for any fertility he has put in the soil which he has not had opportunity to recover. On the other hand, it forbids the tenant to sell certain crops off the land unless he restores to the land the manurial value of the crop sold. For this reason tenants are not anxious to change farms and the landlord does not often want to make a change.

With long leases and the rights of the land and the tenant secured there will be no need for any additional facilities for borrowing money.

196. THE JEWISH AGRICULTURAL AND INDUSTRIAL AID SOCIETY[1]

By GEORGE W. SIMON

In the matter of rural credits there are some who firmly hold that, our people being different and conditions here being different, we cannot transplant to this country the European rural credit systems; that it is impractical and even impossible. It might be of interest, therefore, and to some even a revelation, to learn that here in the United States the French Crédit Foncier system, or long-term rural credit, has been in operation for the past twenty-four years, while the German Raiffeisen system, or short-term rural credit, was established in this country in 1909, and has been in actual operation since 1911. This work has been done under the auspices of a philanthropic organization, subsidized by the Baron de Hirsch Foundation, namely, the Jewish Agricultural and Industrial Aid Society.

The Baron de Hirsch Fund was established in 1890, and from its inception has made loans to Jewish farmers in the United States at a moderate rate of interest and upon easy terms of repayment. The great increase in Jewish immigration to this country naturally increased the demand upon the activities of the Fund, and new and more urgent problems arose. In view of the growing importance of the agricultural phase of the activities of the Fund, the Board of Trustees found it necessary to create a special organization for that purpose. Accordingly, in 1900, the Jewish Agricultural and Industrial Aid Society was incorporated. The chief object of the society is to render financial assistance to Jewish immigrants who wish to become farmers, or to enable those who are already on farms to maintain their foothold. In view of the fact that our resources are limited, we do not, as a rule, make loans on first mortgages, but on second, and even third and fourth mortgages, supplemented sometimes by a chattel mortgage or other collateral security. Loans are made either toward the purchase of a farm or its equipment, or both. Loans are likewise made to those already on the farm to enable them to make improvements, to buy additional equipment, or for like purposes.

During the fourteen years it has been in existence our society has granted, in round numbers, 3,000 loans, aggregating $2,000,000. The loans are made at 4 per cent interest, on long-term mortgages, running on an average for ten years. The terms of repayment are based

[1] Adapted from an address before the Second National Conference on Marketing and Farm Credits, April 17, 1914. (Unpublished.)

largely upon the ability of the farmer and the earning capacity of the farm. The character of the farmer is taken into as much consideration as the real estate security. The proof of the soundness of our experiment is that, in spite of the inferior security which we accept, our losses, during the fourteen years, were less than 2½ per cent and the repayments 30 per cent. The payments to the society for the fiscal year ended December 31, 1913, amounted to $100,091.04 on the principal and $30,292.18 in interest.

Our society made loans in 32 states and in Canada; thus our operations cover a much wider territory than that of all the European land-credit banks combined. It proves that the rural credit system is practical and adaptable in every state of the Union. The time of free land being past, land is now a good security, provided we have good farmers on it. I believe that *land is worth as much as the man who is on it*, and we do have some good men on our farms.

Our experience has shown that, after receiving loans on second and third mortgages on easy payments, our farmers were still struggling against trying difficulties. There arose in our rural districts a new class of money-lenders, who gradually preyed upon the farmers until they had them completely in their power. Sometimes they are the local storekeepers, sometimes "just neighbors." Like the hookworm prevailing in the South, these money-lenders infest the body of our farmers and sap all their energy and strength. To free the Jewish farming communities from these parasites we decided to organize among them co-operative agricultural associations, by means of which the farmers could help one another.

It was not very difficult to introduce these credit unions among our farmers, for we had already organized the farmers into local groups or societies. This we succeeded in doing through the activity of our Educational Department, which issues the *Jewish Farmer*, a monthly periodical published in Yiddish, the editorial staff of which has charge of the extension work. The local societies were afterward centralized into a Federation of Jewish Farmers of America. Through this federation we spread the gospel of co-operation and introduced the Raiffeisen system.

197. STATE RURAL CREDIT LEGISLATION[1]

Legislation dealing with rural credits has thus far been enacted in some fourteen States. Briefly, and roughly, the State laws are designed to make available the cash and credit of the State through

[1] Adapted from the *Outlook*, financial advertising section, February 23, 1916.

the creation of land banks, the stock of which is owned by loan associations. Encouragement is given to building and loan, farmers' loan, land and loan, and rural savings and loan associations, and credit unions and co-operative banks are authorized. These institutions or associations, which are purely mutual and co-operative, receive the applications, grant the loans, execute the mortgages, and deposit them with the land bank. The land bank, acting as between the State and the borrower, deposits the collected mortgages with the State comptroller and issues against them bonds bearing a lower rate of interest than the collateral. These bonds are considered legal investments for savings banks and trust funds, and they are, no doubt, exempt from personal taxation in the State of issue. The Land Bank of New York has recently sold at par $50,000 of its 4½ per cent bonds, secured by deposit of $50,000 in first mortgages bearing a rate somewhat higher than the bonds, probably 5 per cent. The mortgages were sent in to the Land Bank by various New York State loan associations, and they are said to have covered about $17,000 of farm and $33,000 of city property. The borrowers repay through the loan association in instalments covering a period of years.

198. THE FEDERAL FARM LOAN ACT

The Federal Farm Loan Act, which appeared on July 17, 1916, provides for the following organization of rural credit facilities:

Federal Farm Loan Board.—This board, which has general supervision of the system, is composed of the Secretary of the Treasury (*ex officio*) and four members appointed by the President, with the approval of the Senate. Members shall serve for eight years and receive a salary of $10,000 per annum, together with necessary traveling expenses.

The powers and duties of the Federal Farm Loan Board include the organizing and chartering of land banks and farm loan associations; regulation of interest rates and all other charges on loans; making examinations and requiring reports; and supervising the issue of farm land bonds.

Federal land banks.—Continental United States is to be divided into twelve "federal land bank" districts. A federal farm loan bank shall be established in each district; later branches may be established. Each bank is to be managed by a board of nine directors: six of them *local*, elected by the farm loan associations of the district; and three of them *district* directors, appointed by the Federal Farm Loan Board.

The capital stock of each bank, required before beginning operations, shall be $750,000, divided into shares of $5 each, which may be subscribed for by any person, firm, corporation, or state, or by the United States. If not fully subscribed in thirty days, the remainder shall be subscribed by the United States. Stock owned by the government shall receive no dividends. Each loan association and the United States government shall have one vote per share of stock held, and no other shareholder shall be permitted to vote.

National farm loan associations.—The federal land banks carry on their loan operations through local associations of borrowers similar to building and loan associations. "Ten or more natural persons who are the owners, or about to become owners, of farm land qualified as security for a mortgage loan under this act," may unite to form such a national farm loan association; no persons except borrowers on farm land mortgages may become members or shareholders. The general management is vested in a board of five directors.

The capital stock of the national farm loan associations, will depend in amount upon the volume of loans outstanding, since a share of stock is issued for each $200 (or major portion thereof) extended as a loan and paid off at par and retired whenever the loan is paid in full. The borrower receives dividends accruing on stock outstanding. Voting is by number of shares, except that no shareholder may cast more than twenty votes. Shareholders are "held individually responsible, equally and ratably, and not one for another," for all debts and obligations, to double the amount of their stock holdings. This means that they follow American practice rather than the pattern of European co-operative associations.

Joint stock banks.—These banks are organized upon the same plan as the federal land bank so far as possible. Instead of the board of nine appointed and elected directors, they have a board of their own choice, not less than five in number. There shall be at least ten incorporators, and the government shall not be a stock subscriber. They may not issue bonds in excess of fifteen times the amount of their capital and surplus, though federal land banks may issue to twenty times their capital and surplus. They must have a capital of at least $250,000 subscribed; one-half of it must be paid up before beginning business, and all must be paid up before bonds may be issued. Their bonds must be readily distinguishable in form and color from those of federal land banks. The zone of operations is limited to the state in which their principal office is located, and one other state contiguous to it.

OPERATION OF THE SYSTEM

Method of making loans.—The farmer who desires to secure a loan on his land has two courses open to him. He may borrow from a joint stock land bank direct, as he would borrow from the ordinary mortgage company. Or he may borrow from a federal land bank, through a national farm loan association, if one has been organized in his community or if he can interest a sufficient number of other borrowers to effect such organization. Each application for a loan is passed upon by a loan committee of the association, who appraise the land, and make a detailed report. No loan shall be approved by the directors unless all three members of the loan committee favor it. Before the loan is finally granted, a second examination is made by the appraiser of the federal land bank from which the funds are to be secured. The associations may loan only upon the security of first mortgages on farm land of their members and not to exceed 50 per cent of the value of the land for agricultural purposes and 20 per cent of the value of permanent insured improvements. Loans may not be less than $100 nor more than $10,000 in amount, and a charter will not be granted before the total of loans applied for is at least $20,000. No loans shall be made to any person who is not at the time, or shortly to become, engaged in the cultivation of the farm mortgaged, and his borrowing must be for one of the following purposes: (*a*) to provide for the purchase of land for agricultural uses; (*b*) for the purchase of equipment, fertilizers, and live stock necessary for the proper and reasonable operation of the mortgaged farm; (*c*) for buildings and improvements of farm lands; (*d*) to liquidate indebtedness incurred for purposes (*a*), (*b*), and (*c*).

The manner in which the farm loan association secures funds to loan to its members is as follows: It shall subscribe for capital stock of the federal land bank of its district to an amount equal to 5 per cent of the amount of the loan desired. This stock is held by the land bank as collateral security, but the association shall receive any dividends it may earn. The farm loan association may then indorse the first mortgage which it has received from its members, and turn it over to the federal land bank in exchange for funds—either current funds or farm land bonds, at the option of the borrower. In case of default on any mortgage the farm loan association is liable as indorser.

Naturally the joint stock land banks are freed from the restriction upon federal land banks of loaning only to members of farm

loan associations; the size of loan granted to one person and the purposes for which loans may be made are also left to their own discretion. The interest rates which they charge may not exceed 6 per cent nor be more than 1 per cent above the rate established for the last series of farm loan bonds issued by them. Their mortgages must provide for amortization payments.

The rate of interest charged the farm borrower is not to exceed the interest rate on the last issue of farm loan bonds put out by the land bank through which the loan is secured, *plus* a charge of not more than 1 per cent to cover the cost of administration and a profit. This gross rate, however, shall not be more than 6 per cent per annum. In granting the loan the federal land bank is authorized to charge the applicant reasonable fees to cover the actual cost of appraisal and determination of title. Legal fees and recording charges imposed by law in the state where the land to be mortgaged is located may also be included in the preliminary costs of negotiating mortgage loans. These costs the borrower may pay or he may have their amount added to the face of his loan, to be discharged by amortization payments. Furthermore, each annual or semi-annual payment by the borrower shall include, besides the amount due for interest on his loan, such an additional sum as will amortize the debt within an agreed period not less than five years nor more than forty years. After five years from the date of the loan, additional payments of $25 or any multiple thereof may be made or the whole remaining principal may be paid up on any instalment date.

Issue and sale of bonds.—The method by which both federal and joint stock land banks finance their loan operations is through the sale of debentures. These are to be known as "farm loan bonds," and shall be issued by land banks only under specific authorization of the Federal Farm Loan Board. Each district is to have a farm loan registrar, appointed by the Federal Farm Loan Board, to whom land banks desiring to issue bonds may bring the mortgages which they have taken from borrowers (through farm loan associations or otherwise). If these securities are approved by the Federal Farm Loan Board, the land bank is given farm loan bonds of equal amount in exchange therefor. The mortgages are retained by the registrar as collateral, being assigned to him in trust by the land bank.

Farm land bonds shall be issued in denominations of $25, $50, $100, $500, and $1,000, and shall run for specified maximum and

minimum periods, subject to retirement at the option of the land bank at any time after five years from the date of issue. They shall bear interest coupons payable semi-annually, at a rate of interest not greater than 5 per cent per annum. In case either interest or principal remains unpaid after the assets of a defaulting land bank have been liquidated and distributed, such losses shall be assessed upon solvent land banks in proportion to the farm loan bonds each has outstanding. These bonds are exempt from national, state, and local taxes.

Interest, amortization, or other payments received by federal or joint stock land banks must be credited upon the mortgage held by the farm loan registrar, each such payment being reported to the registrar by the land bank. All such payments upon principal shall constitute a trust fund in the hands of the land bank; they may be applied by a federal land bank (*a*) to pay off their own farm loan bonds as they mature, (*b*) to purchase at or below par farm loan bonds issued by themselves or any other federal land bank, (*c*) to loan on first mortgages, (*d*) to purchase United States government bonds. Joint stock land banks may make similar disposition of such payments, except that in (*b*) they are free to purchase, at or below par, any farm land bonds. The securities so purchased or the cash constituting a trust fund for the ultimate redemption of mortgages must be deposited with the farm loan registrar as substituted collateral for the payments which have been made upon these mortgages. When they have been paid in full, the registrar shall cancel and deliver them to the proper land bank for delivery to the original maker or his representative.

199. SHORT-TIME "PERSONAL CREDITS" NOT PROVIDED[1]

It is noteworthy that although the Committee on Rural Credits was directed to consider not only a plan for farm mortgage loans but also a plan for so-called "personal credits," it has accomplished nothing, so far as is known, on the latter subject. There has been a growth of the view that under existing conditions it is difficult to provide for personal loans to farmers beyond what is now done through the use of existing banking machinery. The section of the Joint Committee on Rural Credits to which was assigned the work of preparing a bill relating to personal credits has, at all events, thus far furnished nothing, perhaps with the idea that the subject would be better deferred until the problem of long-term credit has been disposed of.

[1] Adapted from "Washington Notes" in the *Journal of Political Economy*, XXIV (1916), 186.

X

INVESTMENT BANKING INSTITUTIONS

Introduction

In this chapter we are to consider a type of financial institution very different from those we have thus far been studying. In the main the function of the commerical bank is to make loans for business purposes by the use of its own capital, accumulated earnings, and credit. Moreover, the loans made are for short periods only, and the funds are supposed to be devoted to quickly liquidating commercial operations. In contrast with this the function of the investment institution is to collect funds from those who do not wish to assume the responsibility of employing them productively and to turn them over to those who do—to transfer the savings of society to the channels of productive industry. They are unlike commercial institutions, also, in that investment funds are put out for long periods of time and are specifically devoted to capitalistic or slowly liquidating enterprises.

Investment institutions are of two classes—the savings bank and the bond house, now often called investment bank. At bottom these institutions are performing a virtually identical function—that of transferring funds from one class of people to another—but they operate quite differently. The savings bank collects the scattered savings of a community and loans them in turn to those who are in need of funds for the development of business enterprises. These loans are largely made by means of investments in the securities of corporations, the bank receiving the interest on the securities while paying to its depositors a somewhat lower rate. The bond house, on the other hand, starts at the opposite end. It undertakes to find a market for the securities of corporations, that is, to place them in the hands of investors. It purchases the bonds or stock certificates of a corporation at one price and endeavors to sell to investors at a higher price. Among the largest investors in the securities offered by bond houses are the savings banks themselves, though a substantial and constantly increasing proportion go directly to private investors. Where the securities are sold to savings banks one might say that

the bond house and the savings bank are engaged jointly in the transfer of given funds from savers to borrowers—that their work begins at opposite ends and that they meet part way in the process.

When viewed from the standpoint of organization and control, savings banks are of many different types. Many of them are organized on a mutual basis, and are hence very similar to the co-operative institutions discussed in chapter viii. Many of them are semi-philanthropic in their nature; some are organized and operated by the government; while others are private enterprises conducted on strictly business principles. The regular "commercial" banks have also entered the savings field, and the great majority of them now have their savings departments. Insurance companies are also a form of savings institution.

The bond houses, or investment banks, are likewise of numerous types. Some assume in a large way the financial risks of industry, while others are mere purveyors of securities for a price. The process of bond distribution has come to involve several stages which are now clearly differentiated, each involving its special problems. The bond business has grown to enormous proportions, it being estimated that in the neighborhood of $2,000,000,000 of bonds are marketed annually in the United States. Investment institutions are therefore quite as important in the conduct of modern business as are commercial banks. In fact, they occupy a more commanding position in the financial world, and it is in connection with these institutions that the great problem of concentration and control, or the "Money Trust," arises. Treatment of this phase of the subject, however, is reserved for the concluding chapter.

A. Savings Institutions

200. TYPES OF SAVINGS INSTITUTIONS[1]

BY WILLIAM H. KNIFFEN, JR.

We may roughly classify savings institutions into: first, mutual (trustee) or philanthropic; second, stock (including "savings and trust companies"); third, co-operative or democratic, as exemplified in the co-operative banks of Europe. The first are usually managed

[1] Adapted from *The Savings Bank and Its Practical Work*, pp. 52–61. (The Bankers' Publishing Co., 1912.)

by a self-perpetuating body of trustees who do not share the earnings; the second are managed by the directors elected by the stockholders; the third are managed by officials elected by the members.

The distinguishing characteristic of the trustee savings bank is *mutuality*. All the earnings, less reasonable administrative expenses and the apportionment to surplus or guaranty fund, are divided among the depositors in the form of interest.

If we were to trace the savings bank idea back to its origin we should, in all probability, find that it had its beginning in the "sick and aid" and other friendly societies which have existed for centuries in many parts of Europe; for the savings bank is simply the culmination of the attempts of thrifty people to provide for the rainy day. Workmen in all parts of the world have organized societies among themselves whose fundamental purpose has been to save a part of their earnings for slack times, sickness, old age, and death. Such organizations have been formed with no other purpose than to accumulate a fund to properly celebrate Christmas and other holidays, or to finance, in an easy manner, an annual picnic or similar occasion. A small amount of dues is usually required, and these contributions, enhanced by the proceeds of an annual ball or outing, provide the fund from which sick benefits, funeral funds, etc., are paid. Some of these societies even go so far as to make a division of the whole amount on hand at the close of the year and then begin over again. The social features no doubt form an added attraction, inasmuch as the opportunity for rest and recreation is an inducement to join. The organization is often, even in this day, connected with a church, and in many instances, if not all, is productive of much good.

It will readily be seen that any movement by which individuals combine their resources for mutual investment for mutual advantage is, in its essence, a savings bank. Building and loan associations, industrial insurance, fraternal societies, labor organizations, and pension plans are all, in the final analysis, but modifications of the savings bank idea. The difference between the savings banks and such organizations lies in the fact that the savings bank *never* requires any fee for joining or dues or fines for failure to contribute. The management is perpetual, and, except in a few states, the members have no voice in the selection of the managing officials, who do not change except by death or resignation.

The stock savings bank, where it is a *savings* bank, and not a bank of discount under a savings title, differs in no essential degree

from the mutual institution. The mutual bank belongs to the depositors, the stock bank to the stockholders. The mutual bank pays dividends to depositors only; the stock bank pays dividends to both stockholders and depositors. The stock bank does not pretend to be philanthropic in its management. It is purely a business proposition, and where the investments are of the accepted savings bank type, it can justly claim to be on a par with its mutual friends, provided, of course, that it measure up to the standard in its management.

As is implied in the term "stock," it issues capital shares and pays dividends thereon. It has, therefore, the added protection of the stockholders' liability, which, together with the accumulated surplus, affords the element of strength so necessary in all financial concerns. It usually pays the depositors a stipulated rate of interest, and the profits beyond this belong to and are distributed to the stockholders as dividends. The partnership idea is entirely lacking, and the depositors get what they bargain for, while the surplus goes to those who invest, not necessarily their savings, but their *capital*, and assume all risks of the business. It could not in law or equity "scale down" its deposits to make good any losses—a feature peculiar to the mutual institution.

In this respect one thing is certain: In so far as safety is concerned, especially in a young bank, the stock bank with the stockholders' liability is surely superior to the mutual unless the trustees of the latter are of such high order and of such financial worth as to be able and *willing* to assume the burden of any losses that may accrue until the surplus or guaranty fund affords ample protection. This has not usually been the case.

New Hampshire is the only state in which "guaranty savings banks" will be found. These are a combination of mutual and stock—a cross between the two. They do not transact a commercial business, being strictly savings banks in their functions, yet having "special deposits," which to all intents and purposes are capital stock. "The guaranty savings bank differs from the ordinary mutual savings bank in that it has capital stock, or *special deposits*, as they are called. It pays a certain stipulated rate of interest to its *general* depositors and *any surplus of earnings above this dividend is available for dividends on the capital stock or special deposits. These special deposits constitute a guaranty fund for the general depositors, and the charter ordinarily stipulates that the special deposits shall always equal 10 per cent of the deposits.*

"The *special depositors of a guaranty fund* in any savings bank incorporated and doing business under the guaranty system may vote to increase the said guaranty fund at any meeting of the special depositors called for that purpose. The amount of the increase or addition to said fund may be subscribed for and taken by the special depositors of said fund in proportion to their special deposits or by other parties in case of failure of said special depositors to take and pay for said increase or addition within ninety days. Said increase or addition to the guaranty fund may be on such terms of preference over the original fund, as to dividends, and in distribution of assets as shall be determined by vote of the special depositors at the meeting when such increase or addition is voted."

In thus *agreeing* to pay a stipulated rate of interest upon deposits one of the fundamental principles of mutual savings banking is violated, and these "special deposits" are therefore in the nature of capital stock. One of the underlying principles of the savings bank is this: Interest to depositors shall only be paid as it is *earned*, and *only that which is earned can be paid.*

This is not to say that "guaranty" institutions are not savings banks in every sense of the word, but the strictly mutual feature is lacking in the specializing of part of the deposits and paying a higher rate of interest on these deposits.

201. MUTUAL SAVINGS BANKS IN THE UNITED STATES[1]

The reports of the 634 mutual savings banks in the United States as of June 30, 1914, show a total of 8,277,359 depositors and an average deposit account of $473.05. The statement of total resources and liabilities is as follows:

RESOURCES

Loans, including overdrafts	$2,123,921,774.88
Bonds, securities, etc.	1,855,476,712.85
Banking houses, furniture, and fixtures	39,678,148.65
Other real estate	13,196,801.91
Amount due from national banks	73,825,900.56
Amount due from state, etc., banks	98,006,679.33
Checks and cash items	2,489,863.59
Cash in bank	23,987,453.11
Resources not classified	22,406,139.17
Total	$4,252,989,474.05

[1] Adapted from *Annual Report of the Comptroller of the Currency*, 1914, I, 87–88.

LIABILITIES

Surplus	$ 280,095,122.94
Undivided profits	55,503,959.01
Amount due to national banks	123,454.99
Amount due to state, etc., banks	31,784.51
Individual deposits	3,915,626,190.57
Other liabilities (including postal savings, $13,962.27, and bills payable, $110,525)	1,608,962.03
Total	$4,252,989,474.05

Mutual savings banks are confined chiefly to manufacturing centers and towns of the New England and Eastern States, there being only 23 reporting institutions of this character in other sections of the country, viz.: 1 in West Virginia, 3 in Ohio, 5 in Indiana, 5 in Wisconsin, 8 in Minnesota, and 1 in California.

The average rate of interest paid to depositors in mutual savings banks in 1914 was 3.86 per cent, against 3.94 per cent in 1913. The highest rate is paid by the West Virginia banks, 4.5 per cent, and the lowest average by the banks in Pennsylvania, 3.57 per cent. An average of 4 per cent is paid depositors in mutual savings banks in Massachusetts, Rhode Island, Delaware, Indiana, and California. The average rate paid by mutual savings banks in the New England States is 3.90 per cent, in the Eastern States 3.70 per cent, in the Middle Western States 3.68 per cent, and by the one bank in California 4 per cent.

202. STOCK SAVINGS BANKS IN THE UNITED STATES[1]

A large number of so-called savings banks transact chiefly a commercial business and carry very few savings accounts. In those states where savings-bank reports are not separately compiled by the state banking departments, but classified with commercial banks, care has been exercised in eliminating from the classification made by this office all so-called savings banks which are chiefly banks of discount and deposit, transacting only a minimum of savings-bank business.

The resources and liabilities of the 1,466 reporting stock savings banks were as follows:

[1] Adapted from *Annual Report of the Comptroller of the Currency*, 1914, I, 89–90.

RESOURCES

Loans secured by unencumbered and improved farm land	$ 81,687,839.74
Loans secured by other real estate	397,148,757.22
Loans secured by bonds and stocks	63,654,596.86
Loans secured by other collateral	26,975,376.20
Time loans without collateral	111,304,613.25
Demand loans without collateral	21,801,526.69
Loans unclassified	127,053,539.76
Overdrafts	1,911,402.00
United States bonds	521,088.75
State, county, and municipal bonds	24,062,789.82
Railroad bonds	13,619,458.71
Other public-service bonds	4,923,590.42
Bank stocks	966,252.63
Railroad stocks	1,101,264.60
All other bonds, stocks, warrants, etc.	103,505,060.90
Due from national banks	89,490,733.49
Due from banks other than national	24,269,751.23
Cash in bank	43,812,040.12

LIABILITIES

Capital stock		$ 89,423,876.57
Surplus and profits		59,392,603.42
Savings deposits	$752,785,914.16	
Time certificates of deposits	82,662,853.59	
Demand deposits	185,516,890,71	
Total individual deposits		$1,020,965,658.46

The depositors in stock savings banks number 2,832,140, of which 2,228,020 are savings depositors and 604,120 have commercial accounts.

203. SAVINGS IN NATIONAL BANKS[1]

Although a few of the national banks had had savings departments in 1903, there was considerable apprehension on the part of many as to the legality of accepting savings deposits.

During that year Comptroller of the Currency Ridgely gave an official opinion in answer to a request from a western banker relative to whether a national bank could legally operate a savings department: "In reply to your letter relative to the right of a national bank to operate a savings department, you are respectfully informed that

[1] From *Annual Reports of the Comptroller of the Currency*, 1912 and 1913.

there does not appear to be anything in the National Bank Act which authorizes or prohibits the operation of a savings department by a national bank.

"Many national banks pay interest on deposits, the receipt of such deposits being evidenced either by entries in the passbooks of the depositors or by issue of certificate of deposit, as may be preferred. Deposits of this character must be shown in the reports of the bank, and loaned in the manner provided by the National Bank Act. This would prevent a national bank from accepting real estate collaterals, which are deemed judicious for savings banks. All deposits, however, in a national bank are payable on demand, except when the subject of special contract, but the right of a bank to make a contract of that nature is a matter for judicial determination.

"The expediency of a national banking association organized for the purpose of doing a business of discount and deposit engaging in the business of a savings bank is one for consideration and determination by the board of directors."

By reason of the strong competition for deposits, and incidentally the payment of higher rates of interest on savings than on other accounts on the part of trust companies and other State banking institutions, the establishment of savings departments or the payment of interest on savings accounts by national banks has notably increased until at the present time about 45 per cent of the banks have taken that action, as shown by the reports relating to the number and volume of savings accounts.

On August 9, 1913, the Comptroller reports the number of savings depositors in national banks as 3,020,831, the aggregate of deposits as $820,639,410.68, and the average deposit as $205.50.

204. THE REGULATION OF SAVINGS BANKS[1]

BY HOMER HOYT

Legislation on the subject of savings banks varies greatly in different states; in some there is no legislation at all, while in others we find excellent provisions for the safeguarding of the business. In the eastern states particularly, where the mutual savings institutions have long been in existence, we find the best-developed laws on the subject. The New York law has served as a model for that

[1]Adapted from an unpublished thesis on "Savings Banks and the Treatment of Savings Bank Deposits in the United States."

of many other states, and it may therefore be taken as typical of the best regulation we have.

A savings bank in New York is defined by the statutes as: "A corporation duly authorized by the laws of this state to receive money on deposit and pay such rates thereon and to invest the same in such securities as may be prescribed by law."

Since savings banks are investment concerns, the easiest and most effective way in which they can be safeguarded by law is to restrict the investments which are lawful for a savings bank to make. By refusing to sanction investments in doubtful enterprises and stocks and bonds of a fluctuating or uncertain value laws can secure the comparative safety of invested funds. New York has taken the lead in such legislation.

In the restriction of investments there have been two opposite forces at work. On the one hand there has been a tendency toward restriction, to insure the absolute safety of savings bank deposits; and, on the other hand, the call of the higher interest has proven very seductive. It does not do to go too far on the side of restriction and to narrow the field of investment to United States bonds, for then the interest would be so low that few wage-earners would be encouraged to save. The reward of saving should be as high as possible, and the most lucrative bait should be offered at the outset to tempt the marginal depositor. It is far more dangerous, however, to go too far in the other direction. Savings bank investments must be the safest of all investments. It is believed that more depositors are attracted by the consideration of safety than by offer of interest. Hence industrial stocks and bonds paying 8 or 9 per cent, while possible for the ordinary investor, are not conservative enough for the savings bank. The operation of these opposite tendencies—the one constantly to narrow the field and the other to widen it—has established an equilibrium at about $3\frac{1}{2}$ per cent and 4 per cent. At this rate it is possible to secure a gilt-edged bond of a corporation which in all probability will never pass the dividends or default payment. In late years, however, it is becoming more difficult to maintain the old 4 per cent interest rate in New York State. The interest rate on high-grade bonds has steadily declined until those now for sale in the market yield even less than 4 per cent. There are four reasons to explain why the old savings banks have been able to continue paying the high dividend of 4 per cent to depositors in spite of the increasing difficulty of getting bonds which pay more than 4 per cent:

1. The older banks have accumulated a large surplus from their investments in the bonds of several decades ago which bore a higher rate of interest, the income from which creates a fund to be divided among depositors.

2. The banks still carry many bonds purchased a number of years ago which bear high interest rates. These bonds are rapidly coming to maturity and are being replaced by bonds with a lower income yield.

3. The interest on a number of dormant accounts helps to maintain the higher rate.

4. The practice of fixing dividend periods excludes many deposits, and thus increases the rate for the rest.

The law in regard to the investment of funds may be summarized as follows:

1. In the bonds of the United States and New York State.

2. In the bonds of other states which have not defaulted within ten years.

3. In the municipal bonds of New York State municipalities.

4. In the bonds of any city in a state admitted to statehood prior to 1896, and which has not defaulted on any of its bonds since 1861. The debt of such a city, however, must not exceed 7 per cent of its assessed valuation.

5. In first mortgages on real estate in New York State. Such mortgages must not exceed 60 per cent of the value of the improved property or 40 per cent of the value of the unimproved property.

6. In the first mortgage bonds of strong railroads which have paid for at least five years dividends at the rate of 4 per cent on their stock, but the stock must be at least equal in amount to one-third the debt of the road.

7. In the first mortgage bonds of railroads in New York on the same condition. Not more than 25 per cent of the deposits shall be invested in railroad bonds and not more than 10 per cent in the bonds of any one road.

8. Cash to the extent of 10 per cent of the total deposits may be kept on hand or on deposit with state or national banks or trust companies.

9. The trustees may loan this cash if they prefer on collateral, but the collateral must consist of such bonds as are enumerated in sections one to seven above, and the loan must not exceed $90 to every $100 of collateral at its market value.

If the securities decline, the savings banks must demand payment of the loan or an increase of the security.

Stated negatively the law is as follows:

1. A savings bank cannot loan money on notes, drafts, bills of exchange, or on any personal security whatever.

2. A savings bank cannot buy stocks of any kind.

3. A savings bank cannot buy bonds or other securities of any industrial, manufacturing, or street-railroad company.

4. A savings bank cannot buy or loan money on farm lands or on mortgages outside of New York State.

5. A savings bank cannot buy any bonds that are not first mortgage in whole or in part. Even such strong bonds as the New York Central or Lake Shore debentures or collateral trust bonds cannot be bought.

6. A savings bank cannot buy any real estate, bond, or mortgage, except after a full and complete examination of the property by a committee of trustees.

Furthermore, it is a practice of the New York savings banks to invest only in registered bonds.

Practically all the cash of a New York mutual savings bank except such amounts as may be required for current needs is kept on deposit in the vaults of the trust companies. When a run begins the bank is entitled to refuse to pay cash to depositors, except after a sixty-day notice. This gives the savings banks time to transfer their funds from the trust company into their own strong boxes. In the panic of 1907 the rule was enforced in October. Thousands of frightened depositors gave notice. After the expiration of the time limit in December something like eight million dollars were drawn out. At the same time savings bank deposits in trust companies decreased from twenty-seven million dollars to eighteen million dollars, showing that the savings banks drew on the trust companies for the cash with which to pay depositors.

205. LIQUIDITY NEEDED IN SAVINGS BANK INVESTMENTS[1]

BY GEORGE E. EDWARDS

During the last two decades there has been a rapid growth in the deposit liabilities of savings institutions, caused, not entirely by the deposits of the thrifty, but in a large measure by the deposit of investment funds of the comparatively rich. To be prepared to meet in times of stress the demands of both classes of deposits causes much anxiety to savings bank managers.

There is, therefore, no question before the bankers of the country today commanding more thought and attention than the liquidity of loans and investments. The savings banker is equally interested with the commercial banker in securing for his depositor a full

[1]Adapted from "Liquidity of Savings-Bank Investments," *Journal of American Bankers' Association*, VIII (1915), 223–24.

measure of safety, and very properly should seek to increase the usefulness of his institution, both to his customers and to his community.

Preserving in the highest degree the integrity of savings banks, provisions should be made so that in times of emergency they can expeditiously convert into cash the necessary portion of their securities and pay their depositors upon demand. Thereby the usefulness of the institutions will be increased.

When permanency of investment was the order of the day it was only necessary to choose the safest class of securities, invest the deposits, and await maturity. Panicky conditions taught savings bankers new lessons.

It became necessary, therefore, for managers of savings banks to study situations and give much more attention to the investment market than they had when savings banks were in their infancy.

After the panic of 1837 the mutual savings banks, for the first time, realized the importance of accumulating a permanent surplus fund. Prior to that time the larger portion of their funds was invested in State bank stocks, or in notes secured by such stocks as collateral. They had been accumulating profits and every three years paying them out to their depositors in the form of dividends. That panic taught them the necessity of laying aside a certain proportion of their earnings as a reserve fund to be used in the event of another crisis, for if their securities depreciated in value such fund would have to be first exhausted before there could be a general scaling down of deposits. Then, too, they learned that distributing their risks would be advantageous. Wisely they changed their policy, and such change in a large measure protected them during the panic of 1857.

The financial upheaval of 1873, which affected all savings banks, was not without its lesson. From it the banks gained much knowledge concerning mortgage loan investments.

At the first meeting of the Savings Banks Association of the State of New York, held in 1894, the situation of the New York savings banks during the panic of the previous year was discussed and summed up as follows:

"After July 15th (1893) it was found that the withdrawals were constantly increasing, while the scarcity of currency made it exceedingly difficult for banks of deposit to respond to the calls made upon them. Large amounts were being withdrawn from banks in New York and Brooklyn, with a rapidly increasing tendency on the part

of depositors to take alarm and create a run, while it was found impossible, not only to sell securities except at a sacrifice, but, more than all, to obtain the currency needed to pay the deposits.

"It was decided to at once advise the banks to enforce the provision in the Savings Bank Law made for just such an emergency as then existed, and demand notice from depositors as was provided for by the by-laws of each bank, it being suggested that a sixty-day notice would be sufficient. This action resulted at once in a heavy demand from depositors, though the rule was not put in force until the time agreed upon had elapsed. Depositors gave notice of withdrawal on the average of about 3 per cent of the deposits.

"Our experience during the late [1893] panic, together with the rapid accumulation of moneys in our hands, showed conclusively that something must be done, and *that speedily*, to scatter the risks now being assumed. In many cases the entire debt of municipalities in the State is being carried by the savings banks, while we are forced to invest more and more in mortgage loans secured by real estate, both at the cost of increased risk and added volume of an unavailable security in case of financial depression."

The conditions so clearly set forth at this meeting were such that steps had to be taken to bring savings bank investments abreast with the necessities of the times, and from 1893 to 1898 the banks were insistent in their demands upon the State legislature for an enlargement of the security list by permitting investments in railroad bonds. The bank managers believed that in the event of financial stress this class of securities would be readily marketable. Upon the enactment of the desired law the banks bought largely of such securities, so that today more than $289,000,000, or almost 12 per cent of their deposits, is invested in railroad bonds by New York savings banks.

But the enlargement of the investment field did not produce the situation which was so ardently desired by all good bankers. It did not bring about the main requirement of good banking—ability to pay liabilities upon demand. It did not do away with slow liquidation of securities and the necessity of requiring notices of withdrawal from depositors.

In 1907 Mr. Andrew J. Mills, of the Dry Dock Savings Bank in New York City, expressed the ideal as to savings bank investments—the ideal which had been sought by savings bank managers since 1816. He said there were three cardinal principles governing such investments:

First: Security as absolute as human judgment can determine.

Second: The first being assured, then the security yielding the largest income.

Third: Availability, so that in case of necessity the security can be disposed of without needless sacrifice.

The last includes the ability to pay on demand, for in the final analysis it is the ability to pay depositors on demand that constitutes good banking and inspires confidence. Your funds may be invested in securities of the highest order, your loans made with the greatest care, but if whenever there is a depression depositors are required to give notice of withdrawal their confidence is shaken and they will eventually cease doing business with savings banks and deposit their moneys with institutions which will pay without notice.

It has been stated that "panics do not develop from the fear of depositors that they will not ultimately get their money from banks, but from the fear that they will not be able to get it when they want it." That is the fundamental of the depositor's confidence—that he can get his money when he wants it.

It is the understanding of the depositor that his money is payable upon demand and the presentation of his passbook. Confronted with the requirement of a notice of withdrawal he learns that his deposit is not payable on demand, but thirty or sixty days after demand.

Not only in fairness to depositors, but as a matter of policy, would it not be far wiser to invest a portion of our funds in short-time loans, of the character generally referred to as liquid, and in time of emergency depend upon such loans rather than upon the required notices of withdrawal?

It is a mistaken belief held by many that the notice of withdrawal is for the purpose of discouraging the depositor from withdrawing his funds. We know that that is not the reason. We know that the bank requires time to convert its securities and thereby meet the demands upon it.

If savings banks invest a certain proportion of their deposits in short-time obligations which can be readily converted into cash in the open market, or if a proper amendment to the Federal Reserve Law is made, no time within which to convert securities will be necessary, notices of withdrawal will be a thing of the past, and depositors in savings banks, like depositors in other banks, can be paid upon demand.

It is only recently that the word "liquid" has been attached to securities. Until August of last year the call loan secured by stock exchange collateral was thought to be easily convertible into cash in the event of an emergency. Such, however, has not proven to be the case.

Certain short-time loans would admirably meet with Mr. Mills's three principles—as to security, as to yielding good income, and as to availability in case of necessity—without needless sacrifice. But to make such securities available without sacrifice, amendments to various laws governing savings banks are necessary.

With many different banking institutions handling savings deposits, some under strict State laws requiring investment in only the highest class of securities, and others under laws which permit the mixing of commercial deposits with savings deposits, without segregation of investments, it may seem that anything approaching uniformity in the investment laws is incapable of accomplishment.

Absolute uniformity probably cannot be secured, but conferences and discussions between ourselves and with the lawmakers will bring about a clearer understanding of the requirements, and secure at least more uniform laws relative to savings bank investments, at the same time providing ample reserves for the security and accommodation of depositors.

The particular function of a commercial bank is to supply funds to carry on the trade and commerce of the country. The particular function of a savings bank, aside from the encouragement of thrift, is to supply funds for the improvement and building up of communities and for other legitimate enterprises. The one furnishes credit and the other capital.

There is a tendency on the part of some savings banks in different sections of the country to disregard these fundamental principles of banking. While the invested funds of savings banks are ultimately deposited in commercial banks and used for commercial purposes, nevertheless in investments savings banks should not encroach upon the field of commercial banks. While avoiding such encroachment and looking always to the safety of the funds in their care, savings bank managers should carry at all times, as a secondary reserve, a goodly percentage of short-time and readily convertible assets. Regulation of the investments of savings banks should be developed along these lines.

In New York the savings banks hold more than $469,000,000 of bonds of the United States, States, municipalities, and other civil divisions. At the present time securities of this class are decidedly non-liquid, and would assuredly, in the event of an emergency, have to be sold at a sacrifice in order to obtain currency. In the Eastern States, of the vast sum of $2,200,000,000 on deposit, only $50,000 is invested in two- and three-name paper which would probably be acceptable for rediscount under the Federal Reserve Law. Practically the entire sum is in mortgage loans and bonds. It will be seen, therefore, that under existing conditions the savings banks of the East are substantially without liquid securities.

Some managers of savings banks have, however, invested in securities which, in a degree, provide liquid assets.

The policy, for example, of a certain bank in this section of the country is to invest a certain proportion of its funds in short-date maturities, such as serial municipal bonds or railroad equipment obligations.

This policy supplies the bank with a large amount of cash every year, amounting to approximately 5 per cent of its resources. In addition the managers aim to have on hand usually about 6 per cent in cash with an income of approximately 5 per cent of the resources. By so doing they have a fairly large percentage of money coming in every year.

It has also been the policy of this institution to carry a large block of United States bonds—at present having nearly 7 per cent of its resources invested in the 4's of 1925. These holdings, through the circulating privilege which the bonds still enjoy, would supply the bank quickly with an amount of currency equivalent to face value by the loan or sale to a national bank with which it does business. To this may be added its mortgage loan liquidations, which often amount to about 5 per cent of the total amount of mortgage loans. In these several items that bank has a comfortable percentage of liquid assets—about 25 per cent of its deposits.

In connection with the preparation of this paper an inquiry was made "as to whether it is a good policy for savings banks to invest their funds in certain loans which could be readily turned into cash in the event of an emergency, and what proportion of their securities should be of a liquid character." A digest of the replies to this inquiry shows that the opinions as to the kind of securities in which savings

bank funds should be invested are varied, but that there is practical unanimity of opinion that every bank should have a good percentage of its funds invested in readily convertible securities.

206. SCHOOL SAVINGS BANKS[1]

BY SARA LOUISA OBERHOLTZER

Through the school savings banks system in our public schools the boys and girls in the United States have saved and placed to their credit over five million dollars during the last twenty-five years. The work has been forwarded very quietly, and without public support.

Mr. John H. Thiry, a native of Belgium, where he was educated, and later an instructor in schools, came to New York in 1859. He was there engaged in the book business, buying and selling rare books, preferably French and German ones. In 1870 he took up his residence in the Dutch Kills section of Long Island City, devoting himself to horticulture, chiefly grape culture. In 1884 he became one of the school commissioners of the Long Island City public schools, and in 1885 he instituted the school savings banks system in one of the schools there. The system under his care soon extended to all the public schools. It was simply the calling of the rôle for the collection of the children's penny savings each Monday morning and placing them in a bank to their individual credit.

The amount saved by the boys and girls soon attained considerable size, and their development in self-responsibility, industry, and aptness in study was remarked. The public schools in Islip, Amsterdam, Jamaica, and a few other points, through Mr. Thiry's lead, adopted the system. Mr. Thiry had his Scholar's Card copyrighted and began printing statistics annually, giving the figures of the school savings, combined with valuable information on the subject.

In 1889 the writer, through her literary work, became associated with Mr. Thiry in this philanthropy, and presented the subject of thrift teaching through the school savings banks system to Teachers' Institutes, the Academy of Political and Social Science, the National Council of Women, the World's and National Woman's Christian Temperance Union, and other bodies, introducing the school savings banks into a number of Pennsylvania public schools, reaching out into other States, and to Canada and the Provinces. The privilege

[1] Adapted from the *Banking Law Journal*, XXIX (1912), 797–98.

of the copyright card was given to her for the United States, and the work has gone on quietly, steadily, and continuously, Mr. Thiry doing much for the cause, making up the statistics each year and printing them for free distribution. The last of these statistical tables, for which we collected the matter jointly, was printed January, 1910, and reports 1,168 schools using the school savings-bank system, and that the scholars in these schools have saved since its introduction $5,051,644.60.

School savings are now collected in some schools in almost every State in the Union, and in Alaska and Porto Rico. It is almost impossible to secure full statistics of the savings of the children in all the schools using the system; we have not been able to make them complete for several years. The work has been rather a lone philanthropy, without financial support, except a slight appropriation from the Woman's Christian Temperance Union. There are W.C.T.U. aids in some of the States, their mission being to distribute the school savings literature and assist in the extension of the work.

The Comptroller of the Currency at Washington is aiding this year in collecting and compiling the statistics. He has sent out our blanks for reports to the different schools using the school savings system.

207. THE ARGUMENT FOR POSTAL SAVINGS BANKS[1]

By GEORGE VON L. MEYER

It behooves us as a Government to do everything that is possible to encourage among our own people the habits of thrift. American wastefulness and extravagance are well recognized, and we should acquire to a greater extent the art of husbanding our resources and of making a little go a great way.

Within the past seven years more than seven millions of foreigners have come to our shores, and in twenty-five years 12,640,397 have arrived. A great number of these people are setting us an example of what small savings can do by sending to European countries $72,000,000 in the last fiscal year. Within a period of six months—from May 15 to November 15, 1907—the amount which went out to replenish foreign coffers was $49,621,000. These figures represent only the amounts that have been forwarded through the medium of

[1] Adapted from "Postal Savings Banks," *The Independent*, LXIV (1908), 9–11.

postal money orders, and do not take into account the vast sums which are remitted to foreign lands by banks and express companies.

A striking fact is that 92 per cent of the money on deposit in savings banks is in eleven States of the Union—the New England States (comprising Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island), New York, Pennsylvania, Illinois, Iowa, and California, thus leaving thirty-five States representing deposits of only 8 per cent. This demonstrates plainly that the opportunities for depositing money in savings banks has not been sufficiently developed, especially in the South and West.

Every facility should be open to our people, and every man, woman, and child should be able to deposit savings in any portion of the country at any time of the day. This can be afforded by the Post-Office Department, because the post-office is established in every city, town, and village, there being exactly 61,814 post-offices. The postal savings bank, besides encouraging economy and thrift, would afford a place of deposit, free from any possibility of doubt or suspicion, for vast sums of money which might otherwise be hoarded and kept out of circulation through ignorance or lack of confidence. Wherever it may be, this money has lost its proper functions, and the business of the nation not only receives no benefit from it, but even the prosperity of the country suffers, and may be eventually destroyed.

The laboring man going home at the end of the week would frequently put his money in the savings banks if the opportunity were open to him, but he returns from his employment at a time of the day when the banks are closed and the saloons are open.

As an evidence of good faith that there is no intention or desire to compete with existing savings banks the rate of interest recommended is 2 per cent, the amount of deposit being limited to $500 for any individual or society. The Government (Post-Office Department) is a preferred creditor, and the Postmaster-General does not ask that any Government bonds shall be given as collateral for the deposits, as it is not desirable to absorb the bonds for that purpose, but that they be left free for currency. The Post-Office Department would be secured as being a preferred creditor and by reason of the liability of the stockholders of national banks for double the amount of stock held by them, and the facility (through the Comptroller of the Currency) of examining the banks at any time.

In answer to the point which has been raised in a very few instances, that this would tend to encourage depositors to take their money from State or national banks, it is self-evident that any individual who has the intelligence to go to a national or State bank with his deposit does so for the advantage of having it subject to payment by check, and in order to obtain accommodations in the way of discounts of his own paper or that of his business clients. No business accommodations of any kind or description would be obtained at a postal savings bank, not even that of drawing the money by check.

As to the effect it would have on savings banks, it requires but very little thought to convince one that a depositor who has his money in a savings bank (where he is receiving 3 or 4 per cent) will not withdraw it and place it with the postal savings bank, thus reducing his interest by one-third or one-half, except possibly in times of crises or flurries, such as we have experienced lately; and at such moments the great advantage of the postal savings banks would be felt because of the guarantee of the Government behind the deposits. The Government would be enabled to lead the money back instantly into the channels of trade through the national banks in the same locality, and be instrumental in overcoming sudden stringencies due to large numbers of depositors taking their money out of circulation or hoarding it.

208. SOME DETAILS OF THE POSTAL SAVINGS SYSTEM[1]

An account may be opened and accounts made by any person of the age of ten years or more, in his or her own name, and by a married woman in her own name, and free from any control or interference by her husband; but no person may at the same time have more than one Postal Savings account.

Deposits will be accepted only from individuals and no account will be opened in the name of any corporation, association, society, firm, etc., or in the names of two or more persons jointly. No account will be made in trust for another person (as is the case in many foreign countries).

No person will be permitted to deposit more than $100 in any one calendar month, nor will the balance to the credit of any depositor be allowed to exceed $500, exclusive of accumulated interest.

[1] From Instructions Issued to Postmasters by the Postmaster-General.

No account may be opened for less than $1, nor will fractions of one dollar be accepted for deposit at any time.

The interest rate shall be 2 per cent on deposits which have remained for at least one year, and will be computed only from the first of the month following the day on which the deposit was made.

Postal Savings deposits will be evidenced by certificates of deposit issued in the name of the depositor. These will be non-transferable and non-negotiable.

To enable any person to accumulate and deposit amounts less than one dollar, depository offices will keep for sale postal savings cards at 10 cents each and 10-cent Postal Savings stamps which may be affixed to the cards. One card and nine stamps will be accepted as a deposit of one dollar.

Postmasters at depository offices must deposit daily all moneys received by them on account of Postal Savings business in local banks which have qualified as depository banks under the Act of Congress and the regulation adopted by the Board of Trustees, and if no local bank has so qualified, deposits must be remitted daily by registered mail to other banks most convenient to the locality, which have qualified as depositories.

Any depositor may withdraw the whole or part of his funds by surrendering at the depository office the savings certificates properly endorsed.

When the Postmaster has not sufficient postal savings funds on hand to pay demands for withdrawals, he must draw on the emergency credit allowed him by the Postmaster-General. If the emergency credit is insufficient to meet the demands, he must report the fact at once to the Postmaster-General, the right being reserved to defer payments until the necessary funds can be furnished to the Postmaster.

Accounts are to be kept private; no person connected with the Post-Office Department to give any information concerning them.

The deposits of postal funds in banks are to bear interest at the rate of not less than $2\frac{1}{4}$ per cent. No bank, however, is allowed to receive a sum greater than its capital and one-half of its surplus.

The Act requires that the Board of Trustees shall withdraw 5 per cent of the total receipts to be held as a reserve fund and at its discretion may withdraw 30 per cent more for investment in bonds and other securities of the United States. The remaining 65 per cent is to be kept as a working balance and may only be withdrawn by order of the President under extraordinary public conditions. All

of the funds must be available, at all times, for the payment of depositors.

The limit of $500 as the account of any one depositor does not, however, limit the possibility of utilizing the postal savings banks to any extent, for the law provides for the purchase, by depositors, of United States Postal Savings bonds, bearing 2½ per cent interest and payable in twenty years. The provisions of the act with reference to these bonds are as follows:

SEC. 10. That any depositor in a postal savings depository may surrender his deposit or any part thereof, in sums of twenty dollars, forty dollars, sixty dollars, eighty dollars, one hundred dollars, and multiples of one hundred dollars and five hundred dollars, and receive in lieu of such surrendered deposits, under such regulations as may be established by the board of trustees, the amount of the surrendered deposits in United States coupon or registered bonds of the denominations of twenty dollars, forty dollars, sixty dollars, eighty dollars, one hundred dollars, and five hundred dollars, which bonds shall bear interest at the rate of 2½ per centum per annum, payable semiannually, and be redeemable at the pleasure of the United States after one year from the date of their issue and payable twenty years from such date, and both principal and interest shall be payable in United States gold coin of the present standard of value: *Provided*, That the bonds herein authorized shall be issued only (first) when there are outstanding bonds of the United States subject to call, in which case the proceeds of the bonds shall be applied to the redemption at par of outstanding bonds of the United States subject to call, and (second) at times when under authority of law other than that contained in this Act the Government desires to issue bonds for the purpose of replenishing the Treasury, in which case the issue of bonds under authority of this Act shall be in lieu of the issue of a like amount of bonds issuable under authority of law other than that contained in this Act. . . . . *And provided further*, That the bonds herein authorized shall be exempt from all taxes or duties of the United States as well as from taxation in any form by or under state, municipal, or local authority: *And provided further*, That no bonds authorized by this Act shall be receivable by the Treasurer of the United States as security for the issue of circulating notes by national banking associations.

209. SUCCESS OF THE POSTAL SAVINGS SYSTEM[1]

The fiscal year 1914 witnessed a steady, healthy, and substantial growth of the Postal Savings System. On June 30 the number of depositors was 388,511, and the amount on deposit to their credit

[1] Adapted from the *Annual Report of the Postmaster General*, 1914, pp. 27–29.

was $43,444,271, a gain for the year of 57,505 depositors and $9,625,401 in deposits. The average principal per depositor increased from $102 to $111.82. Savings facilities were available at 9,639 post-offices (of which 8,507 were of the presidential grade and 1,132 of the fourth class) and at 708 branches and stations, making a total of 10,347 depositories in operation.

The proponents of the system, among other arguments advanced in support of the enactment of the postal savings legislation, asserted that it would encourage among the people the formation of habits of economy and thrift. On June 30, 1911, six months after the system began operation, there were 11,918 depositors, and the average balance was $56.82. At the close of each six months' period thereafter substantial increases in the number of depositors and the average balance are shown, until, on June 30, 1914, there were 388,511 depositors, and the average balance was $111.82. These facts afford conclusive proof that the practical operations of postal savings in this country have amply fulfilled the predictions of its advocates.

The safety and security afforded by the postal savings depositories have been a source of strength and protection to our people in time of stress and the means of steadying financial conditions in the United States. Many foreign-born citizens who have patronized these institutions are resorting more freely to their use during the present European crisis and will doubtless continue to do so even in larger measure when normal business conditions shall have been restored.

Evidence is conclusive, however, that the postal savings facility would have served a greater usefulness and would have been the means of restoring a much larger amount of money to business uses were it not for the provisions of the law which limit the amount that may be accepted from a depositor to $100 in a calendar month and restrict his maximum deposit to $500. The inability of a prospective patron to deposit all his accumulated savings results in confusion of thought, which frequently leads to a refusal to deposit any part of them. Such funds invariably go back into hiding and disuse. The precautionary limitations of the law were no doubt inserted because the service was new in this country and, in a sense, experimental. While it is believed that the interest of the public will be best served by ultimately removing altogether the restrictions on the amount that may be accepted on deposit, it is manifest that this condition should be approached gradually and as experience in administering

the system indicates that additional steps may be taken toward the desired goal. It is recommended, therefore, that the provision in the postal savings act which limits the amount that may be accepted from a depositor in a calendar month to $100 be removed, and that the maximum balance which may be accepted be increased, under certain conditions, to $2,000, but limiting the amount on which interest shall be paid to $1,000.

210. THE FUTURE OF SAVINGS BANKS[1]

By MILTON W. HARRISON

If space would allow, an interesting discussion may be had with relation to the future of savings banking in the United States. Such questions as: whether capitalized savings banks should establish branches and sub-branches on a large scale so as to make it possible for the wage-earner to more easily save his money; whether the Postal Savings System should be extended; the desirability of municipal savings banks for the sale of municipal bonds, thereby eliminating the middleman's profits and a consequent saving to the municipality; the question of the creation of Federal legislation and establishing savings departments for Federal banks, would certainly be both vital and timely.

Only a few months ago a plan for a municipal savings bank was offered by Adolph Lewisohn. The plan provided that the city establish offices of deposit, probably branches of the Bureau of City Treasury in the Department of Finance or of some similar bureau which might be created in that Department, for the purpose of receiving deposits from persons desiring to invest their savings in the city's credit; that depositors receive scrip or other evidence of the city's obligation to return the deposits; that the return of the deposits be secured either by the general credit of the city or by the pledge of city bonds with some board or other official agency duly authorized; that the city have the use of the funds on deposit for purposes for which it might use the proceeds of corporate stock or other city bonds; that the city pay from 2½ per cent to 3½ per cent (varying according to money market and other conditions) interest on deposits and redeem the scrip or repay the deposit on thirty or sixty days' notice, or on demand, the city in that case, however, reserving the right to

[1] Adapted from "Savings Banking in the United States," *Journal of American Bankers' Association*, VIII (1916), 734.

require such thirty or sixty days' notice; that depositors of $100 or more have the right to convert their scrip into city bonds issued directly to them.

211. LIFE INSURANCE COMPANIES AS INVESTMENT INSTITUTIONS[1]

By A. S. JOHNSON

From a financial point of view the life insurance company is a device for accumulating savings which shall be returned, not to the man who saves, but to his heirs at his demise. Some of the insured, it is true, die long before the sum of the premiums they have paid equals the sum that the insurance company has agreed to pay at their death. On the average, however, the insured live long enough so that their premiums, together with the earnings of the capital which those premiums form, are at least equal to the sums which the insurance company pays out in death claims.

It is obvious that in a country like the United States, where life insurance is exceedingly common, immense sums of money must be collected by the companies every year to be held as a reserve against death claims. As the business of life insurance is steadily growing, the funds accumulated by these companies are also increasing. The annual receipts of practically every important life insurance company exceed the annual disbursements. Accordingly, a life insurance company may invest its funds without much regard to the possibility of turning its investments into cash at short notice. It is important, however, that the business should be conducted in a conservative manner, since the failure of an insurance company would be a more widely felt calamity than the failure of almost any other business enterprise of equal magnitude. The loss would be borne in the end largely by the dependents of propertyless men.

The reserves of life insurance companies are largely invested in real estate mortgages, in state and municipal bonds, and in the bonds of railway, commercial, and industrial corporations. Stock investments have often been made by insurance companies, but the practice is now generally regarded with disfavor, since the values of stocks are likely to show a wide range of fluctuation.

[1] Adapted from *Introduction to Economics*, pp. 320–21. (D. C. Heath & Co., 1909.)

212. INVESTMENTS OF INSURANCE COMPANIES[1]

By ROBERT LYNN COX

The table below is for all American companies whose figures were tabulated in the *Insurance Year Book* for their respective dates.

ASSETS OF AMERICAN LIFE INSURANCE COMPANIES

	December 31, 1904	December 31, 1914
Real estate	$ 180,875,035	$ 171,173,551
Real estate mortgages	671,577,813	1,706,365,405
Bonds	1,067,027,851	1,981,751,698
Stocks	172,582,975	82,552,532
Collateral loans	42,715,261	20,351,766
Policy loans and premium notes	189,738,779	735,348,014
Cash	104,027,124	95,160,368
Deferred premiums	45,879,455	68,832,680
All other assets	24,636,705	73,716,779
Total admitted assets	$2,499,060,998	$4,935,252,793

Some notable features in the above table attract the attention at once. First, and most important of all, is the fact that in ten years' time the assets of American companies have practically doubled in amount. Great as was this increase in the family-protection funds of the country, it only kept pace with the increase in national wealth, which also about doubled during the same period. The next striking fact is that investments in real estate mortgages are two and one-half times as large, increasing from $671,000,000 to $1,706,000,000. On examining the relations of the various classes of investments to each other, as given in the column showing the percentage of assets invested in the different kinds of securities, we find that during this period the companies' holdings in real estate have decreased more than one-half in ratio to other securities, and have actually decreased in amount over $9,700,000. The percentage of investments in stocks is less than one-fourth what it was ten years ago and in actual amount is about $90,000,000 less. The percentage of collateral loans is less than one-fourth what it was ten years ago and in actual amount over $22,000,000 less. Cash on hand also has been reduced one-half in percentage and nearly $9,000,000 in amount. In short, the trend of the times has been to reduce investments in stocks, collateral loans, and real

[1] Adapted from *Investment News*, V, No. 2 (1916), 24.

estate, also to reduce the proportion of cash carried in offices and banks and to materially increase the amount and proportion of investments in real estate mortgages and policy loans.

In view of the fact that life insurance companies held over $1,700,000,000 in real estate mortgages and their ratio to other assets has been steadily increasing, it seemed desirable to make a critical examination of these securities by a geographical distribution of amounts loaned on farms compared with other real property, average interest rates, etc. To this end we invited the co-operation of the life insurance companies of the country and received responses giving data by states and class of securities from 125 companies and tabulated the investments of the only large company which declined to report. So our tables include the mortgage loans of 126 companies whose real estate mortgage loans amounted to 97 per cent of all such loans held by American companies. The total loans, divided between farms and other real property, but not separated by states, supplied by 22 other companies, enables us to show the separation between farm and other real property loans of 98¼ per cent of all the outstanding mortgages of American companies. Of these 148 companies, 17 make loans only on farm property, 15 only on real property in cities, towns, or villages, while 116 loan on both farm and city properties. The amount loaned by the 17 farm loan companies is $12,827,709. The amount loaned by the 15 city loan companies is $426,260,163, and the amount loaned by the 116 companies loaning on both is $1,158,014,595. There are 102 American companies whose figures are not included, but as their combined mortgage loans amounted to but $29,262,938, or 1¾ per cent of the total held by all American companies, their absence will not affect materially the completeness of this tabulation of life insurance mortgage investments.

The total mortgage loans of these 148 companies amounted to $1,677,102,467, of which $654,650,505.72, or 39.03 per cent, were on United States farms; $993,480,170.03, or 59.24 per cent, were on other real property in the United States, and the balance—$28,971,792.14, or 1.73 per cent—was loaned on real estate mortgages in Porto Rico and foreign countries, most of it in Canada.

The proportion of mortgage loans on farms varies all the way from thirteen-hundredths of 1 per cent in the Middle Atlantic group of States to 86 per cent in the Northwestern group, the average for 148 companies in America being 39.72 per cent of their total United States mortgage loans. In the Eastern States the amount loaned on

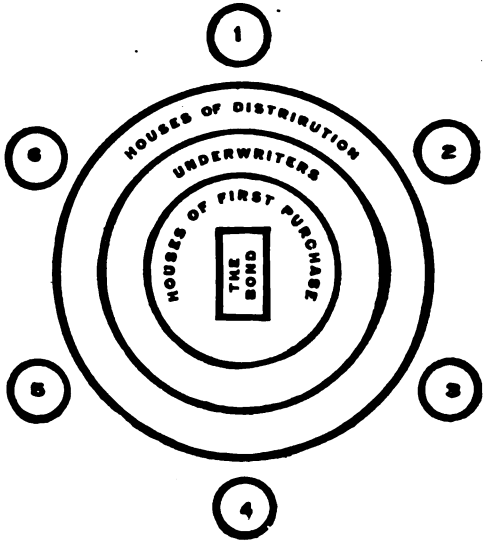
farms is negligible, in the Central, Northern, and Southern groups the farm loans rise to considerable amounts, but it is in the great Southwestern and Northwestern sections, whose agricultural development in the last fifty years has been so marvelous, that the great bulk of the life insurance farm loans has been placed. On the other hand, we find that over half of the loans on real property other than farms have been placed in the populous commercial and manufacturing sections of the New England and Middle Atlantic States, which contain very nearly half of such property values of the entire country.

B. Investment Banks or Bond Houses

213. THE MARKETING OF BONDS[1]

BY THEO. H. PRICE

The process of bond distribution is carried on mainly by three groups of men, or institutions. While there is much overlapping in the functions performed, those engaged in the marketing of bonds may be roughly differentiated as to the field in which they are most conspicuously active. These three groups are: (1) the houses of first purchase, (2) the underwriters, (3) the houses of distribution. This may be conceived of as three concentric circles, thus:



[1] Adapted from an article on "Commerce and Finance," *Outlook*, CVI (1914), 429–30, 598–601.

The houses of first purchase compose a group small numerically but strong financially. Until recently it was supposed that membership in the so-called "Money Trust" was a condition of inclusion within this group. This idea is now exploded, for it is realized that some of the houses in the inner group are both able and willing to act with absolute independence. In New York there are perhaps seven or eight firms who may be classified as "houses of first purchase" for bond issues of five million dollars or over. In Boston there are three, or possibly four, and in Chicago and Philadelphia two each.

In the cities named, as well as in St. Louis, Cleveland, Baltimore, Pittsburgh, Cincinnati, Denver, and San Francisco, there are a number of concerns that are entirely competent to take the initiative in handling relatively small issues, but when the amount involved exceeds three or four millions it is generally found necessary to enlist the services of one of the larger organizations. Under conditions as they are and have been, few houses have had the enabling credit and capital required to buy outright a large issue of bonds and the prestige necessary to insure their subsequent distribution. The would-be borrower cannot afford to deal with any concern not able to promptly say Yes or No to his proposition, and large resources, commanding position, and a reputation for success are essential to any firm or corporation that would buy ten or twenty million dollars' worth of bonds and thereafter market them profitably.

When such an issue has been bought, the buyer almost invariably proceeds at once to minimize his risk in the transaction by distributing it among the underwriters. The function of this group will be better understood in the light of etymology. The distribution of risk which is now called insurance was at first accomplished by an agreement among merchants to share the hazard of each other's ventures. This agreement, being expressed in writing, was signed by the various parties thereto, and in so signing they *wrote* their names *under* it, thus becoming *underwriters* or insurers. This is precisely what is done in the underwriting of a bond issue, except that the principle of co-operation is applied, not only to diminish risk, but to increase the probability of a reasonable profit. To make this clear the illustration of a concrete case is necessary. Let us assume that a firm of bankers, having agreed to purchase $20,000,000 of 4½ per cent bonds at 90, determine to offer them to the public at 94 and to pay the distributing houses who may finally dispose of them 1½ per cent for their services and expenses in distribution. If and when the bonds are

sold the net price received by the houses of original purchase will be 92½, which would leave them 2½ per cent profit less expenses. It is, however, quite possible that bonds will not be sold at 94, in which case the original purchasers might find their money indefinitely tied up or have to accept a substantial loss to release it. To guard against this contingency, and before offering the bonds at 94, they proceed to divide their possible profit with other houses or individuals who are willing to share the risk and become underwriters.

These underwriters agree to buy the bonds at 91 if they are not taken by the public at 94, less the distributor's commission of 1½ per cent, or 92½ net.

If the sale is a success, the underwriters, having agreed to buy at 91 the bonds sold at 92½, receive 1½ per cent for the risk they have assumed. If it is not a success, they must take the bonds at 91, and the original purchasers are thus assured of 1 per cent profit on the transaction, out of which all expenses must be paid.

For the chance of making 1½ per cent on the amount of the commitment, the underwriters face the possibility of having to tie up their capital indefinitely or accept a heavy loss; and the losses so accruing during the past two years would surprise the uninitiated and disabuse them of the idea fostered by financial novels and the drama that participation in a Wall Street syndicate implies a certainty of profit. In the selection of underwriters care is generally taken to secure concerns or individuals whose opinions are influential in investment finance. This is done on the assumption that an underwriter who is assured of 1½ per cent profit, if the sale is successful, will do what he can to make it so. As a matter of fact, however, this theory is not to be relied upon in practice, so far as the American markets are concerned. It is thought to be an important factor in French finance, from which it is supposed the idea of the "underwriting syndicate" was derived, but in the United States sentiment is properly opposed to it upon the ground that no one can disinterestedly advise the purchase of securities by the sale of which he will profit.

The duties and responsibilities of the underwriters are therefore comparatively simple and need not be further enlarged upon. There remain to be considered the "Houses of Distribution," as a result of whose activities the bond finally passes into the hands of the investor. These houses are very numerous. Some of them have large capital and great organizations, and others which distribute many securities depend entirely upon their "connections" and a clientèle

with whom their relations may be social as well as financial. Many investors prefer to deal with a firm whose senior partner is never too busy to give them his personal attention, and the son or son-in-law of an influential officer in an insurance company or savings bank often becomes a partner in a small bond house for the patronage he is supposed to command.

Outside the "Houses of Distribution" proper are various groups of investors who generally act somewhat in accord. Such groups include:

1. An insurance company and its directors, who, if rich men, will probably buy for their own account some portion of a bond issue that their company has taken.

2. A firm of bankers or a bank in a smaller city that supplies a local investment demand.

3. A European group or syndicate that acts as a secondary distributor or buys securities against which it issues its own debentures, as in the case of the Scotch trust companies and the investment associations of Holland.

4. Individual trustees or lawyers charged with the investment of large estates, who are generally willing to anticipate their requirements if anything specially choice is for sale.

5. Trust companies and their correlated banks, whose purchases may be either for the trust funds of the former or as an investment for the deposits of both.

6. Savings banks, which, taken as a class, are the largest institutional buyers of the classes of bonds to which they are restricted by the laws of the various States.

The list of the various subsidiary groups among which the distributor of bonds finds his best market might be extended almost indefinitely, but those described will give a reasonably clear idea of what may be called the headwaters of the investment stream that must be kept continually flowing into the bond market.

A general description of the works of the larger houses is as follows:

Each of them maintains offices in New York, Boston, Chicago, and London. Each of them employs about eighty salesmen, whose salary, expenses, and commissions average probably $6,000 a year apiece. Their American offices are all connected by private wires, and it is no uncommon thing for them to dispose of $5,000,000 worth of bonds in a day. To do this it is, of course, necessary that they should be in constant touch with institutions, brokers, or groups

who can act quickly and buy in quantity, and with such buyers they are generally willing to divide part of their profit, the practice being to allow a deduction of from one-quarter to three-quarters of 1 per cent, depending somewhat on the amount purchased.

The sale of a large issue of bonds is an incident that in many of its aspects is quite dramatic.

The purchase, in the first instance, has been quietly negotiated. The transaction having been underwritten, the "Houses of First Purchase" proceeds to enlist the services of one or more of the "Houses of Distribution."

If the issue is a very large one, it is generally considered expedient to associate at least three, and sometimes four or five, distributing concerns in the business. They are selected with regard to the territory they cover. One may be strongest in New England, another in New York City, another in the Middle West, and still another in the Maryland and Pennsylvania districts. If the bonds belong to the class that can be sold abroad, a foreign house or one with strong connections in London, Amsterdam, and Frankfort may also be employed. The offering is generally made over the names of the associated houses, but a division of territory is privately agreed upon and each distributor is alloted the quantity that he expects to dispose of in a particular district. Some days before the sale is advertised the larger buyers of bonds in each district are canvassed and given opportunity to say what quantities they will buy or care to have "put down" to them, less their usual commission. Preliminary notices of the impending issue find their way into the newspapers. Public interest in the matter is aroused and frequently advance applications for large amounts are received.

Sometimes the bonds are bought and sold on the so-called "curb" markets in New York, Boston, and elsewhere for delivery "if and when issued." Such transactions may antedate the actual issue for weeks, and the price established is often above that at which it is expected the bonds will be offered. The effect of such quotations in quickening public interest in the prospective sale is amazing.

Finally the advertisement appears, coupled with the announcement that no applications received after a certain day and hour can be considered, and the right is reserved to reject any application and to allot less than the amount applied for.

Occasionally it happens that all the bonds have been sold before the advertisement is published, in which case it is supplemented by

the statement that "this advertisement is published as a matter of record only, all the issue having been sold."

The publication of the advertisement under such circumstances is, of course, entirely unnecessary, and it is designed only to call attention to the success of the offering and add to the prestige of the houses concerned.

Firms that have regard for their reputation will not, however, offer bonds by advertisement unless they have previously sold a very large portion of the issue.

The public is capricious, and to offer an issue and not sell it would seriously injure the prestige of the issuing house.

Nearly all the work of salesmanship is therefore done before advertisement or in connection with securities that are not advertised at all, being bought from one investor and sold to another. This latter class of business has enormously increased of late. Many bond houses make a practice of exchanging new securities for older ones that are perhaps better "seasoned" and therefore sell on a lower interest basis. This practice, of course, involves constant trading.

214. THE PRACTICAL OPERATION OF BOND HOUSES[1]

By LAWRENCE CHAMBERLAIN

The purchasing function.—If a municipal loan is offered, the purchase is a comparatively simple matter, provided the municipality is well known to the fraternity. Then no preliminary investigation is required; a bid is made for the loan at the current market rates and acceptance on award is subject to the approval of the bidder's attorney in all respects affecting the validity of the obligation.

If the municipality is not well known to the bidder, a qualified representative will, or should be, sent to learn at first hand the physical and financial condition of the city and to form an estimate of its probable future willingness and ability to meet its present and future obligations.

If a corporation loan is offered, it will probably be submitted at the offices of the bankers by a representative of the company or by a promoter. If the applicant is of a social turn of mind, he will probably not lack company of his kind in the anteroom. Competition, fortunately, is keen.

[1] Adapted from *Principles of Bond Investment*, pp. 516–22. (Henry Holt & Co., 1911.)

The first step in the process of elimination (there is more elimination than acceptance) is to discard the propositions of companies that conduct a kind of business unfamiliar to the bankers. Except under unusually favorable circumstances the highest grade of bond houses will not purchase bonds of industrial corporations, mining or irrigation companies, etc.

The next step is to discard loans that have not a claim on property worth, under the most unfavorable conditions, more than the amount of the obligation. Most corporations will bond themselves in as large a sum as their bankers will permit. Loans are continually being rejected because of insufficient equity in property values.

The third step is to discard those propositions which do not give reasonable assurance of earning at all times at least 50 per cent more than all fixed charges, after making extremely liberal estimates for future increased operating expenses.

The fourth step is to decline loans to companies conducted by men or with methods which do not meet with approval.

If the house is satisfied by interview and correspondence in matters of the above nature, and if a suitable price can be agreed upon, then engineers and accountants may be sent to the plant and offices to make a thorough examination; and the members of the firm, with counsel, meet officers of the company and their attorneys to settle the matters of form. On acceptance of an issue a careful banking house may demand representation on the directorate of the company until such time as the company shall have discharged its bonded obligation.

There is a difference in the degree of care exercised by various houses. The ultra-conservative will not permit their names to be associated with "construction propositions." They will consider for purchase the obligations of only seasoned companies with established earning power.

The reactionary effect of the stringent requirements of bond houses is of inestimable benefit to corporation finance, but its good influence has a wider sphere; it embraces municipal corporations and municipal finance. American bond houses have put municipal bond buying on an entirely different plane from what it was in 1875. In this they have been helped by, and have helped, the development of municipal bond law. In these days cities and towns that have had much experience placing bonds will be certain in advance of their advertisements for bids that the loan has been issued in conformity

with the exacting requirements of the bond attorneys. Certain strong Canadian houses command such respect in their country that they have been able to direct the legislation of the Western provinces to the end that the Western loans may be more acceptable to the investors in the Eastern provinces and in England.

The advisory function.—This advisory and directive function is more prominently operative in bond selling than in bond buying. It has its source in the statistical departments which every house of quality must maintain. It finds its chief expression, as already stated, in tabloid investment lessons, printed in the advertising columns of newspapers and periodicals, or with somewhat greater fulness in pamphlets and monographs. If a prospective client has an investment policy that is apparently not suited to his particular needs, the home office may tactfully direct his attention by letter or through their representative in his territory to a means by which he may better his position. Some bond houses maintain a daily news sheet for the benefit of their salesmen in which are printed, not only pertinent items of current interest, but timely discussions of different problems.

The banking function.—Illustrative of the relation between house and client, there has arisen the demand that banking departments be established for the safe-keeping of funds destined, upon enlargement, to go into investment, and also to accommodate those who wish to purchase securities before they have sufficient funds to pay in full for them. From the necessities of these two situations it is only a short step to the conduct on a small scale of a bank deposit subject to check. But properly and ordinarily the banking department of a bond house is conducted as a matter of accommodation to its customers and not primarily to do a general banking business. From these beginnings it sometimes has happened that a full-fledged bank has been evolved, in which the savings, deposit, and trust functions of the bank have balanced, nominally at least, the sales function of the bond house, but an exception of this sort would only prove the rule. Although bond houses are banks, technically, and are entitled to their common designation, "bankers," nevertheless, on the principle that security selling is not best undertaken by obligor companies, but is properly left to the bond houses which make it a profession, so the general banking business is best left to banks proper.

The bond houses as fiscal agents.—Because of purchasing, advisory, and banking functions bond houses are called upon to act as fiscal agents for corporations, municipalities, and even states. The long-

standing friendly banking relations of the older firms with the Western cities recall the fact that interest, and sometimes the principal, of the loans of these cities are payable at the offices of the bond house. Here and there an Eastern institution is met that will not buy Western municipals which are not payable in the East. This is not so much to save the cost of conversion into New York funds, for that might be arranged in the price, as because of the inconvenience and possible loss of interest in shipping the bonds West for collection. Some of the older bond houses act as depositories for Western cities. In general the conduct of the bond houses as fiscal agents has merited the trust placed in them.

It is natural that private corporations will look to the bond houses as their financial agents. The disposition of a company's funded loans is not merely a matter of merchandising; it is natural that the relationship begun by the purchase of bonds and banking representation on the directorate shall be continued indefinitely in the thought of future financial needs. Just as the great railroad systems have their long-established financial connections with certain large houses, so the public-service and other private corporations form alliances with the bond houses. The continuance of such relations implies conformity on the part of the obligor corporations with the policy of the bond houses. This also tends toward a betterment of financial conditions throughout the country.

The selling function.—American banking houses are not eleemosynary. Whatever may be their usefulness in the community, it is the result of that enlightened self-interest which used to be expressed in the phrase "Honesty is the best policy." Their reason for being is to make money by selling bonds, and the competition is getting keener every day. Many of the ordinary effects of competition are noticeable in the bond business. There is standardization of wares and policies, there is diminution in ratio of profits. But two ordinary effects of competition are conspicuously absent. There is no deterioration of the product and no tendency toward consolidation among the vendors.

There are some who profess to see in the gradual evolution of the bond business a tendency to relinquish direct selling from house to client through traveling salesmen in favor of distribution on a commission basis, through local independent bankers. This may come. If it should, it would be one of the evil effects of competition. It would relieve the "retail" houses of a large part of that sense of

personal responsibility which they now feel. They would be in a position analogous to that of the wholesale houses at present. Investors would have to accept offerings from those who had no part in the investigation which preceded the original purchase of the issue, and who, presumably, would not have the capital or organization of distribution to "protect the market" for the benefit of those who might wish subsequently to sell their securities.

The protective function.—There is a radical difference in the attitude of bond houses in this matter of repurchasing securities of clients to whom they have sold them. Some take the stand that a sale is a sale, and the responsibility of a house that has acted in good faith ceases upon delivery of the bond and the receipt of payment. This position is logical and just, but again competition steps in to benefit the customer. Other houses say: "We shall put out our issues as nearly as possible on a plane of marketability with active listed securities. We make no promises, but, except in times of panic, when it may be impossible to raise money to satisfy everybody, we hope and expect to be so situated as to buy back at the fair market price the securities we have sold."

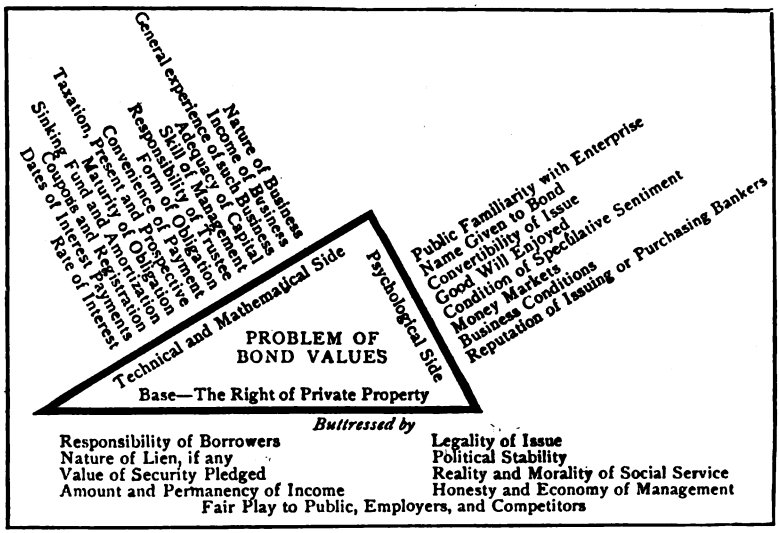
But the protective function of the bond house is most important in respect to the moral responsibility of "seeing the clients through" default, reorganization, and rehabilitation in the extremely rare cases in which trouble arises. In some instances losses amounting to hundreds of thousands of dollars have been made good; in many instances the firms have volunteered to pay interest which has been suspended; in every case a reputable bond house will feel called upon to take the active leadership, at its own expense, in upholding the mortgage rights or other legal claims of the bond holders.

With the enlightened aid of bond houses the creditor class will do well to take as much pains in the investment of its wealth as in the acquisition of it. Buyers of corporation bonds should exercise as much care in the selection of a financial adviser as in the choice of a security. They should seek a bond house with a strong personality, strong convictions on investment matters, and the capital and equipment to back them up.

215. THE BASIS OF BOND VALUES[1]

By THEO. H. PRICE

In this diagram the basic factors and the technical and mathematical elements are grouped on the longer sides of the triangle. To the psychological division of the problem less space is given, as it deals with influences that will be impermanent if the essentials of security exist. Conversely, it is quite possible for those who understand the psychology of the investment market to take advantage of the public at an adventitious moment and induce them to buy bonds that lack the intrinsic qualities of safety.



For this reason the reputation of the bankers who are sponsors for the securities is the most important of the psychic or intangible factors, and as such will be considered later on.

The technical and mathematical determinants of bond values can be only partially enumerated and briefly discussed here. They embrace nearly the whole field of human experience and science.

Volumes which carry one well into higher mathematics have been written about sinking funds and amortization. The duties of trustees and the words in which the promise to pay is phrased have been made

[1] Adapted from an article on "Commerce and Finance," *Outlook*, CVI (1914), 327-28.

the subject of much litigation and many law books. There are many other details of the problem that might be mentioned to make plain the need of specialists in coping with it.

But these specialists must include not only lawyers and mathematicians; there must be men of broad sympathy, wide experience in business, acute power of analysis, and well-balanced optimism to pass upon the rights of enterprise to credit through the medium of bonds. The great bankers who control the water gates through which the public's money flows to irrigate the fields of industry have their obligations to the borrower as well as to the lender, to the worker as well as to the capitalist.

If the test of deservedness be made too acid, and the pessimism born of experience is not tempered by the optimism of hope and imagination, the banker will fall short of the full duty which his opportunities impose. It is the gift of imagination and the quality of constructive optimism that differentiate the banker from the money lender, and the greatness and influence of the late Pierpont Morgan lay chiefly in his ability to visualize the picture of the future upon the canvas of the present, and in his helpful belief in his fellow-men and his country.

The instrument of credit that is called a bond provides a means whereby the immobile or undeveloped assets of a deserving enterprise may be pledged to secure the money which should be used to extend still further the field of beneficent activity. So regarded, the bond may be properly utilized by any political entity or business organization that can demonstrate that it is possessed of the requisite and the honorable good faith which is the first essential of credit.

Almost everything that human industry has produced or for which society has need has been or may be made the basis of a bond issue.

It is entirely clear that skill and trained experience of the highest character are necessary to discriminate as between good and bad bonds. It is equally clear that when skill and experience have eliminated the bad bonds and accepted the good bonds money must be provided *en bloc* to buy them. Next, the machinery of introduction, advertisement, salesmanship, and distribution must be put in motion to pass the bonds along to the ultimate investor, so that a normal level may be maintained in the distributing reservoirs of capital.

XI

THE INTERRELATIONS OF FINANCIAL OPERATIONS

Introduction

The purpose of this concluding chapter is, first, to indicate the interlacing and ramifications of the various forms of financial operations in the United States and to point out the consequences of the prevalent confusion that has existed with reference to the true functions of the different types of banking institutions; secondly, to show how the Federal Reserve System is designed to correct the weaknesses that have developed in our banking system in connection with the confusion of investment and commercial principles; and, thirdly, to outline the great problem of financial concentration and control, popularly called the "Money Trust."

The material here presented is directly related at many points to the principles developed in preceding chapters. The very first selection, for instance, has already been foreshadowed in chapter iv, in the reading on "Collateral Loans and Stock Exchange Speculation"; but attention is here directed to the manifold relations that exist between commercial banks and the securities' markets and to the problems that arise in connection therewith. Similarly, the use of the funds of "commercial" banks for investment purposes was definitely pointed out in our analysis of the loans of "commercial" banks. Here, however, we are showing the extent of and the reasons for this practice, together with its effects, upon the financial system in general. Again, in our study of the Federal Reserve Act numerous provisions were noted which touched the field of investment; but here we are discussing the provisions that have most conspicuously been designed to differentiate commercial from investment operations. In a word, this chapter is built upon the general analysis of credit and banking that has been made in Part II of this volume and is designed to suggest the constructive reforms that are being discussed at the present time.

The readings under "C. Financial Concentration and Control" reveal the tremendous rôle that the investment banker, or financier, plays in the modern business world and the problems that have

arisen in connection with the use of this enormous power. The development of large-scale business and the uniting of independent concerns into gigantic combinations, which have characterized our transportation and manufacturing industries during the past twenty years, have been paralleled in the banking world. Indeed, the two movements have developed hand in hand, and each has been necessary to the other: large-scale industry required the development of financial institutions commensurate with their needs, and, conversely, the growth of large banking institutions made it possible to accumulate the capital required by modern industries.

The public has been greatly agitated in recent years over what is termed the greatest of all monopolies, the "Money Trust." A government committee has made an investigation into the extent of financial concentration and control in this country, and a very able defense of current practices has been presented by the financiers of Wall Street. While results of the investigation clearly do not substantiate the charges that have been made, most students are agreed that the system that has developed gives to the financial interests an enormous power which, if wielded with sinister intent, or merely with unwisdom, would be fraught with tremendous consequences throughout the entire industrial system. The concluding selection of the volume points out the economic functions that are served by the modern financier and indicates the abuses that arise in connection with the exercise of these legitimate functions. The problem here would seem to be the same as with trusts or large-scale industries in general—to conserve the undoubtedly good features while eliminating the abuses that develop.

A. Investment Operations of "Commercial" Banks

216. THE RELATION OF THE BANKS TO STOCK EXCHANGE SECURITIES[1]

By JACOB H. HOLLANDER

In the United States the money market, in the form of bank loans, may be regarded as impinging upon the stock exchange at five distinct points:

1. Stock-exchange securities are used as collateral to secure mercantile discounts and personal loans in the insufficiency of commercial or personal credit.

[1] Adapted from *Bank Loans and Stock Exchange Speculation*, pp. 4–26. (National Monetary Commission, 1911.)

2. In the interval between original sale and ultimate absorption by investors newly issued corporate securities are used by underwriting syndicates and syndicate participants to secure bank advances.

3. Banking institutions invest in stock-exchange securities such part of their resources as are not employed in loans and discounts in consideration of interest return and in anticipation, semi-speculatively, of appreciation in market value.

4. Bond houses and stockbrokers engaged in the sale of investment securities obtain bank loans as working capital upon unsold holdings.

5. Speculative purchases of stock-exchange securities are financed partly by time loans, but in the main by demand loans obtained from banking institutions and secured by such securities as collateral.

Let us consider these in turn.

1. The stock-exchange securities in this case represent in the main: (*a*) individual loans by those who are without commercial or personal credit or who are unwilling to use it even though they possess it; (*b*) supplementary business loans by those who have exhausted the maximum commercial credit which their customary banks have found it possible to accord, and (*c*) loans made by corporations who have been unwilling or unable to market their own obligations and are driven to use these in part to secure urgently needed borrowings.

No question has ever been raised as to the utility of this feature of our banking system. It is obviously advantageous that those engaged in business activity, or individual effort, who happen to be owners of stocks or bonds, should be able upon proper occasion to secure temporary advances of credit thereon without the waste and friction of forced sale. The banks here simply serve as pawnshops for securities. Capital is made more mobile without sacrifice of productivity, and both the business community and the investing public are benefited.

2. The ordinary procedure in modern corporate financiering is for the borrowing corporation to enter into an engagement with a banking institution, public or private, for the guaranteed flotation, commonly at a stipulated price, of the proposed issue. In the interval between the preliminary engagement and the consummated arrangement the purchasing institution will have secured from other institutions or individuals subscriptions to participate in the purchase covering all but such part as it may itself desire to retain. Such subscriptions will have been made to some extent by savings banks,

insurance companies, and trustees for direct investment purposes, but in the main by junior banking and brokerage houses to meet customers' demands. If times be favorable and the securities popular the issue is likely to be absorbed by the public in response to the advertised offering made by the contracting house or the syndicate manager, if for no other reason than to accredit the issue, and reinforced by the elaborate selling organization that the ordinary bond house has developed. In such event, prompt absorption of the issue by actual investors, there will be no occasion for banking intervention. The funds requisite will be withdrawn from individual savings accounts and bank deposits and the purchased securities will find their way into strong boxes.

If, however, general economic conditions are unfavorable, either the trade purchasers or the underwriting participants, or both, will find themselves with unsold blocks of securities on hand. These may be taken up at once by those ultimately responsible, or, more likely, the unsold quota will remain under the control of the manager until with the expiration of an agreed or reasonable time—often extended and re-extended—the distribution of the unsold remainder among the subscribers is consummated.

Under such circumstances prompt recourse will be had to banking institutions for advances of credit upon the unsold or undistributed securities. The stage at which recourse is had to the banks and the extent to which credit advances are sought varies with the nature of the contract, the resources of the purchasing house, and the progress of the distribution. If the issuing corporation requires early payment, the obligations in temporary form, or even the purchase option, may be used by the purchaser as collateral for a bank loan. If the loan be undersubscribed, the part left over will be similarly hypothecated; or if the subscription be full but the absorption incomplete, the undigested parts, either in the custody of the syndicate manager or distributed among the separate participants, will be used as banking collateral. Ordinarily such advances are made by the banks at the rates prevailing for call money, or upon even more favorable terms in the case of underwriting syndicates having strong banking connection.

If corporate enterprise is to secure with economy the additional capital necessary from time to time for growth and expansion, if accumulated savings are to find productive employment with promptness and certainty, some such relationship between corporate borrow-

ing and the existing banking organization of the United States meets this requirement of business enterprise with moderate success. Such evils as from time to time disclose themselves seem inevitably incident to the alternating fever and quiescence of modern economic organization. In flush times, when promoters abound and banks become less prudent, the availability of corporate securities as bank collateral undoubtedly serves as an artificial stimulus to evoke projects that are unnecessary or unwise. The way is opened for a perilous process of pyramiding that leads swiftly to reckless involvement.

A further criticism is that such bank loans tend to encroach upon the accommodations that can be afforded ordinary business activity. The times in which the banks are most heavily involved in syndicate underwritings are periods of business activity rather than quiet. It is then that corporate projects take amplest shape and flotation follows quickly upon flotation. During the upswing the absorption is so rapid, the profits so alluring, and the public service so plausible that banking conservatism is put to the test merely in distinguishing accommodation from excess and enterprise from venture. A bank's mercantile customers ordinarily have the first claim upon its facilities. But in periods of business calm not all of its resources will be so employed and—in lieu of the even less profitable avenue of employment in stock-exchange loans—advances upon syndicate collateral are very acceptable. Such loans are nominally payable on demand, but in reality they are much less liquid than the ordinary call loan. Such practice gives rise to serious problems and is unfortunate, but it appears to be a necessary result of the daring nature of modern business. Publicity and improved means of control are required to safeguard the situation.

3. The motives leading to investments by banks in stock-exchange securities are in some cases specific and obvious. The financial institutions of Baltimore, for instance, find it profitable to invest largely in Baltimore City bonds, because such securities are not only exempt from state and local taxation but, by a curious series of implied agreements, administrative rulings, and legal enactments, carry with them a corresponding tax-deducting power, to the extent of largely relieving some of the institutions from capital taxation. More common is a bank's investment in a particular State's or municipality's bonds in the hope, or even as the condition, of becoming its public depository or of securing some public or semi-public account. This may even extend to a private corporation, whose profitable banking account

can be more certainly retained by participation in its financing. Finally, some part of a bank's securities represent the foreclosure of hypothecated securities, acquired by the institution for its own ultimate protection.

But these instances explain only a fractional part of the aggregate holdings and do not touch the essential consideration, which is, that a bank buys securities because it can find no other profitable investment during recurring periods when business is quiescent for such of its surplus funds as it would otherwise employ in its regular channels.

When reserves become congested and the local demand for money is exhausted, neither the call money market in New York nor the masked rediscount of country bank paper nor the availability through brokerage houses of the promissory paper of a limited number of widely known mercantile and industrial establishments will absorb the excess, and recourse is had to the bond market.

From whatever point of view regarded, this apparent necessity under which American banks now labor of tying up large parts of their loanable funds in stock-exchange securities is unfortunate.[1] It offers an unhealthy stimulus to corporate financiering by supplying a temporary and fictitious market for investment securities. It invites speculative gains and losses by the fluctuation in market price in the interval between purchase and liquidation. It curtails mercantile accommodation by the bank's reluctance to liquidate such securities in a declining market, and it injects an additional element of risk into banking stability in the temptation to invest in less seasoned and more productive bonds.

4. The modern stockbroker is engaged in two kinds of activity—the purchase and sale of investment securities and the conduct of speculative operations for principals or in personal behalf. Ordinarily both classes of business are conducted by the same house, but there are many bond houses who do not invite speculative accounts and, on the other hand, many commission houses figure inappreciably in the investment market.

In so far as the activities of the stockbroker relate to the purchase and outright sale of investment securities, he is a dealer in merchandise. Accordingly, his vaults, like the shelves of the merchant or the warehouse of the manufacturer, are at all times stocked with investment wares awaiting the demands of his investing clientèle.

[1] This was written, of course, before the passage of the Federal Reserve Act.—EDITOR.

In addition to undistributed syndicate holdings, the ordinary bond house is the owner, by actual purchase and payment, of blocks of securities acquired for purposes of sale at profit, and the actual distribution of which is pressed with all the energy and skill of commercial vending.

Advances of credit upon the unsold part of this stock in trade are sought from the banks in supplement of the broker's own working capital. The relation of the stockbroker to the banks is, in this particular, like that of any other business man. Restriction of credit on such security would find an exact parallel in the case of a merchant denied credit upon unsold wares or a manufacturer upon undistributed produce.

This service is rendered with reasonable adequacy by our present banking system. Bond houses suffer something in common with all mercantile enterprise from the inelasticity of bank credits in periods of economic expansion, but the treatment accorded is often preferential and the discomfort on the whole less acute.

5. Speculative purchases of stock-exchange securities have resulted from the accumulation of funds in central reserve cities, notably New York, through the practice under the National Banking laws of redepositing reserves and of habitually allowing 2 per cent interest upon country bank deposits subject to call.

It is not possible for the New York banks to employ all such deposits in mercantile loans and discounts, even were it sound banking to lend call money on time loans. The only method of profitable use is demand loans, and the only large market is offered by speculative operators on the stock and produce exchanges.[1]

We have here all the conditions favorable to artificial stimulation of stock-exchange speculation. At periods of seasonal dulness, and, even more, at times of business reaction, the irresistible lure of payment for idle money attracts the surplus funds of the interior banks to New York, there to be pressed upon the call money market for what it will bring, and, finding regular employment only in stock-exchange operations, to encourage speculative commitments at the very time when quiescence is in order. As there is unwholesome stimulation, so there is sudden and wasteful liquidation. When reviving business leads the interior banks to reduce their New York balances, the depositary banks meet the strain by calling loans, with

[1] For the method by which such loans are made see selection No. 39.

the result that the speculative movement for the rise is reversed and a repressive influence cast upon general business.

It is certain that a measure of stock-exchange speculation would persist even if the resources of the New York banks were alone available for financing it, but the extent of such accommodation, even when supplemented by the demand loans made available by individual capitalists, would be limited and the cost of securing it would be greater. Individual speculation would be less in amount and narrower in distribution. Most of all, the periods of speculation, in so far as determined by the cheapness of money, would vary logically with the movement of general business, instead of, as at present, running in vicious opposition thereto.

217. INVESTMENT LOANS OF COMMERCIAL BANKS[1]

By C. W. BARRON

The best estimates that we can get privately of bankers is that the real commercial loans in the national banks do not exceed three billions, or one-half the loan account.

While the paper appears in the form of commercial loans, a considerable part is for fixed forms of property and for as distinctively industrial expansion as are stocks and bonds. And why should it not be?

A merchant with sufficient capital to do his own banking may have several hundred thousand dollars cash in the bank, owe no money, and have a million dollars in accounts on his books, or notes in his box representing commercial loans due him. His business expands and he desires to put a half-million or a million into a new factory. Will he issue stocks or bonds or make any permanent borrowing for this? Certainly not. He notifies the bank he will want a half-million or more money covering certain months. The bank's response is, of course, that he can have all the money he wants and give any kind of a note on time or demand. His cash balance is worthy of his credit. His borrowing is, therefore, not necessary commercial borrowing, but commercial borrowing is forced by his construction.

The state banks and trust companies carry far less commercial paper than the national banks. On page 51 of the Report of the Comptroller of the Currency for 1913 will be found a record of not only the

[1]Adapted from *The Federal Reserve Act*, pp. 68–73. (Boston News Publishing Co., 1914.)

7,473 national banks but of 18,520 state banks, trust companies, private bankers, and savings banks in respect to the character of their loans. Out of a total of $14,600,000,000 loans based largely on demand deposits, $3,500,000,000 are secured by real estate and mortgages, and $4,500,000,000 by other collateral, and $8,000,000,000 on fixed forms of property. The "other loans" are $6,500,000,000, including, of course, the so-called $3,000,000,000 commercial loans in the national banks as noted above. Of these the real commercial loans are somewhere between three billions and six billions. Private estimates of bankers with far better knowledge of the real situation than is possessed by the government officials vary all the way between these two figures.

We have for some time estimated that the real commercial loans for the transactions of commerce in this country do not exceed five billions and that between nine and ten millions of bank loans are on fixed forms of property.

This represents property in process of digestion by investors. When the amount is large, or the investment fund is light, it is termed overinvestment or indigestion of securities. Nearly two-thirds of our bank loans represent constructive industry, stocks, bonds, and fixed forms of property in process of digestion, and only one-third represent commercial transactions.[1]

218. THE MISUSE OF COMMERCIAL BANK FUNDS[2]

By H. M. GEIGER

We have all been too busy to keep books accurately on a big scale. Consequently no one can tell us exactly what proportion of our assets represents permanent investment; what percentage we use for development and construction, or what sum is absolutely necessary to carry on the rapid-fire exchanges of industry and commerce.

Roughly, we know that certain sums are deposited in savings banks, trust companies, and in the savings departments or time certificates of deposit of national banks. With some degree of approximation we can guess that these funds are available for more or less permanent investment in stocks, bonds, investment notes, or other securities which will not be paid in full until a long period of time has

[1] See selections Nos. 32 and 37.—Editor.

[2] Adapted from a pamphlet entitled *Financial Readjustments* (1915), pp. 2–5. (Copyright by the author.)

elapsed. But we have no exact account of our "commercial" and our "investment" funds in general.

Even without this information, however, the daily practice of business constitutes sufficient proof in itself that the combined total of all "investment funds" as represented by the resources of savings, trust, and insurance companies, private investors and investment banks, are not sufficient to meet the demands created by our industrial expansion. The extraordinary expansion of civilization in America during the past century has made use of every penny of available capital, has borrowed five or six billions from Europe, and has still been driven to make merciless inroads on what we should have been taught to respect as our "commercial" fund. This is not a cause for sorrow or of worry. The money has been well used. Our fathers found a wilderness. Since then the wilderness has not only been reduced to a fairly well cultivated area of farms, cities, mines, and factories, but the nation as a whole has kept pace with the unprecedented commercial and industrial progress of the older civilizations of Europe, which had all the fundamentals of their culture built and paid for when we were surveying roads through forests and following Indian trails across the Western plains.

Our one error was in mistaking the proper functions of our commercial banks.

Stated bluntly, a majority of the resources of national banks are tied up in loans of a more or less permanent character. Truly, the notes are usually made for periods of four or six months, but it is the understanding between the banker and the borrower in many instances that these notes shall be renewed indefinitely, provided certain periodical reductions are made and the interest discounted in advance. Moreover, the country is filled with manufacturers who expect bankers not only to finance their temporary needs, but who have also built their plants on capital borrowed and reborrowed, again and again, from banks.

This practice has been one of the most prolific causes of industrial failures in the United States. Dun's and Bradstreet's reports for many years show that 90 per cent of all failures are due to lack of capital. In very many instances excellent enterprises were undertaken at periods when it was easy to secure loans from banks, only to fail in the midst of their development because some contingency forced the bank to withdraw its support and demand the payment of its loans.

So, while the practice of loaning "demand" deposits to borrowers who are not prepared to pay except at the end of a long period has caused many sleepless nights for bankers, it has also produced innumerable tragic failures for enterprising men who have seen their plans shrivel up and disappear under the sheriff's hammer to satisfy a note that had been "called."

219. THE ADVANTAGE OF THE DRAFT OVER THE PROMISSORY NOTE IN COMMERCIAL BANKING[1]

By EARLE P. CARMAN

The usual method of obtaining credit for commercial purposes is by borrowing on the promissory note, and the usual method of extending commercial credit is on open book account. Let us examine both methods.

The promissory note is not a distinctive commercial instrument. It bears nothing on its face to indicate the purpose for which the funds it represents have been used or are to be used. Very often it is simply an accommodation credit instrument and has nothing behind it except the general resources of the borrower. Quite frequently it is an investment credit instrument, representing nonconvertible property. A prominent banker of western Pennsylvania recently issued promissory notes for the purpose of obtaining investment funds, to the extent of several million dollars, and with the usual disastrous result.

When used for commercial purposes, the promissory note usually represents a combination of commercial credit and investment credit. In other words, the proceeds of the note are usually used partly to pay for commodities of trade which will be resold and partly to pay for permanent fixtures or improvements which will never be resold while the business of the borrower continues.

But the aggregate amount of commercial credit tied up and made inconvertible by the use of promissory notes representing mixed commercial and investment credits is probably small in comparison to the aggregate amount of commercial credit represented by book accounts, which are both immobile and nonconvertible. This vicious system of extending commercial credit is quite unknown in any of

[1] Adapted from "The Change of Credit Methods Made Necessary by the Federal Reserve Act," *Commercial and Financial Chronicle*, April 24, 1915, pp. 1396–98.

the other leading countries. It has everything against it and nothing in its favor, either as regards the seller, the buyer, or the general credit situation.

As regards the seller, it compels him to limit his sales on credit by the capital employed in his business, and his profits are restricted accordingly. If he extended credit only in such form that it could be converted into cash, he could sell all the goods that the trade would consume, and his profits would be limited only by the laws of supply and demand and his maximum capacity.

As regards the buyer, it is obvious that commercial credit extended to him in convertible form would be limited only by his legitimate needs and ultimate ability to pay, while credit extended to him through the nonconvertible book account is limited by the capital of the seller and many other extraneous considerations.

As regards the general credit situation, the book account has the same effect as the non-convertible promissory note, which has already been described.

Need any more be said to show that the mixed promissory note and the open book account are unsound and impracticable mediums of commercial credit, and that their general use is a serious handicap to commercial progress?

The European method of extending commercial credit is free from any of the evils mentioned and is simple and uniform. It consists merely of the use of the draft or bill of exchange in all cases where we use the book account and promissory note. The period of credit to be extended is agreed upon by the parties, and when the seller ships his goods he draws a draft against the buyer, payable in thirty, sixty, or ninety days, as the case may be, for the amount of the invoice, which is usually attached with the bill of lading to the draft. The draft and shipping papers may be forwarded to the purchaser either directly or through the banks, as may be deemed advisable. When they are received, the purchaser detaches and retains the shipping papers, affixes his signature to the draft under the word "Accepted," and returns it to the seller or the bank presenting it, as the case may be. It thus becomes a bill of exchange which can be discounted and thereby converted into cash at any time.

220. THE ADVANTAGES OF THE PROMISSORY NOTE OR SINGLE-NAME BORROWING[1]

By J. B. FORGAN

Commercial paper or a commercial note used to be a note given by a firm or corporation that bought goods from another firm or corporation. This note was discounted by the firm that got it, with their indorsement. The manufacturers gave credit to the jobbers and the jobbers gave credit to the retailers. The jobber paid the manufacturer by a note and the retailer paid the jobber by a note. This was extended all through the commercial life.

That practice still prevails in England. A large concern like Marshall Field & Company, except that they never give anything but checks, I believe, but any firm in their line doing business in the old way, instead of going to their bank and borrowing money on their own note, would go to the manufacturer and would arrange that he should draw on them at sixty or ninety days. The draft would be made when the goods were shipped and the firm would accept it. If the firm's credit were not sufficiently strong for its paper to go into the market, it would go to its bank and get it to accept for it.

Eventually we developed away from that. Today any jobbing house or manufacturer or pretty nearly any respectable retail house that has not credit of its own sufficient to go to its bank and discount its own paper and pay cash for its bills is on a black list.

The poorest paper we have, and we have very little of it in Chicago, is the paper given by the purchaser of goods for the goods. There are a few lines of business where the old system is kept up, but these are very few.

The best paper we have is the paper of the strongest houses who have credit of their own, who make their own paper, go direct to their banks with it or to a broker, place it on the market, get the cash, and use the cash discount.

The system of cash discounts has produced this. The best thing the wholesale houses and manufacturing concerns, in the exchange of credit information among them, can say about their customers is that they always take the cash discount. If they have anything to say against the customer, it is that the latter does not take the cash discount.

[1] From "Testimony before Committee Charged with Organizing Federal Reserve Banks," *Bankers' Magazine*, LXXXVIII (1914), 280–83.

You can easily see that the expansion is not nearly so great. If the concern that takes the ore out of the ground is going to get the ore to the furnace on credit and take the furnace's note for it, and if the furnace is going to sell its iron production to the manufacturer and take his note, and if the manufacturer is going to sell to the iron jobber and take his note, and the iron jobber sell to the retailer and take his note, you have five or six notes afloat at the same time representing the same goods. If you reduce all that business to a cash basis and have the ore producer, the furnace man, and so on, only borrowing what he requires at his own bank to carry on his business, there is much less flotation and expansion of credit than in the other way.

They carry this expansion to such an extent in England that a tailor does not expect to be paid by anybody inside of a year. We do not have such a credit system as that. We pay our bills. We are much nearer a cash basis than any foreign country. This will have to be recognized. The paper that is issued for commercial purposes must be understood to be used for commercial purposes. If a concern like the International Harvester Company places its paper on the market and uses the money in its business, it is used for commercial purposes and it will have to be construed in that liberal line.

221. INVESTMENT BANKING AND BUSINESS INFLATION[1]

About twenty-five years ago Lord Revelstoke, at the head of the great firm of Baring Brothers, was visiting a German watering place where he met one of our leading American bankers. Naturally their conversation drifted into a discussion of the financial situation, and in the course of the talk Lord Revelstoke remarked that he intended during the next ten or fifteen years to enter extensively into modern financial banking. From that time the character of the business of the Barings began to change, and from being the greatest merchants in commercial credits they put their resources more and more into fixed forms of investment, into speculative ventures in securities, and into the promotion of financial enterprises. What was the result? In 1890 the world was startled by rumors reflecting upon the credit of this house, hitherto considered invincible, and its failure was only averted by the most strenuous efforts of the Bank of England, with the aid of the strongest bankers of London.

[1] From the *Wall Street Journal*, October 29, 1904. Quoted in Cleveland, *The Bank and the Treasury*.

We refer to this striking chapter in financial history simply because it illustrates one of the peculiar dangers of our own times. Unquestionably the special temptation to which our banks are now subjected is the temptation to turn from commercial to financial banking; to change from the buying and selling of commercial credit to investments in securities and loans extended to promote financial enterprise; in short, to change their business from that of commercial banks to that of finance companies.

The process of concentration in banking which is going on would possess little danger were it not accompanied in so large a degree by this change. The house of the Barings was a striking example of concentration in banking. Its business encircled the globe; its wealth was enormous, and so great were its transactions that even at the time of its trouble in 1890 its holdings of paper amounted to $100,000,000. But when it began to divert its interest and began to throw the weight of its prestige and resources into the field of investment, speculation, and promotion, then the power of its concentration of capital became a menace to the world. In the same way concentration in banking, which is going on at such rapid rate in New York, would not be open to much or any criticism if such concentration was employed for the purpose of facilitating the commerce of the country instead of being used in purely financial undertakings.

222. WHY "COMMERCIAL" BANKS BECAME INVESTMENT BANKS[1]

BY LOUIS D. BRANDEIS

The enormous profits from promotions, underwritings, and security purchases in the investment field have led to a revolutionary change in the conduct of our leading banking institutions. It was obvious that control by the investment bankers of the deposits in banks and trust companies was an essential element in their securing these huge profits. And the bank officers naturally asked, "Why, then, should not the banks and trust companies share in so profitable a field? Why should not they themselves become investment bankers too, with all the new functions incident to 'Big Business'?" To do so would involve a departure from the legitimate sphere of the banking business, which is the making of temporary loans to business

[1] Adapted from *Other People's Money, and How the Bankers Use It*, pp. 26–27. (Frederick A. Stokes Co., 1914. Originally published in *Harper's Weekly*.)

concerns. But the temptation was irresistible. The invasion of the investment banker into the bank's field of operation was followed by a counter-invasion by the bank into the realm of the investment banker. Most prominent among the banks were the National City and the First National of New York. But theirs was not a hostile invasion. The contending forces met as allies, joined forces to control the business of the country, and to "divide the spoils." The alliance was cemented by voting trusts, by interlocking directorates, and by joint ownerships. There resulted the fullest "co-operation"; and ever more railroads, public-service corporations, and industrial concerns were brought into complete subjection.

223. EFFECTS OF INDUSTRIAL EXPANSION ON DEMAND DEPOSITS OF COMMERICAL BANKS[1]

BY FREDERICK A. CLEVELAND

Between 1899 and 1902, owing to the tremendous expansion of business, deposit accounts of commercial banks increased over $4,000,000,000, or more than double the entire monetary stock of the country. During the same years the specie reserve of banks remained practically unchanged. Moreover, the capital of these institutions had not been proportionately increased.

What has been the cause of this enormous expansion of bank credit? The answer must at once come to the mind of any observer of finance that the principal reason for the expansion of deposits (bank credit accounts) and the accompanying expansion of loans (commercial paper held by banks) is to be found in the great movement which has been the significant feature in financial affairs of the last half-dozen years, the movement to aggregate industrial establishments into single great corporate units and to convert the evidence of ownership into corporate securities which have entered actively into the stream of financial operations. Vast amounts of new securities have been created in these half-dozen years, based in a large measure upon properties which were before held as fixed investments by individuals; or, if standing in form of corporate property, the securities of these corporations were more closely held, and in but small measure entered into the financial operations of the day. This movement, tending to convert the evidences of ownership of a great

[1] Adapted from *The Bank and the Treasury*, pp. 5–11. (Longmans, Green, & Co., 1908.)

amount of fixed property into a form which has been considered as bank collateral, and which has been made the basis of loans and of corresponding increases of deposits, is undoubtedly the most important single cause for the increase of more than four billion dollars in bank credit obligations to depositors and a corresponding increase in commercial paper held by banks in this country during the brief period of three or four years.

Attention may be called to the fact that the depression from 1893 to 1896 was, as were other similar periods, one of financial reorganization—one during which new economies were introduced into our industrial establishments. During this period of depression also the water had been gradually squeezed out of previously inflated capitalizations; again the nation had come to rely, for its "cash" as well as for its income, on profits from legitimate business. With this better industrial equipment we were able to sell pig iron at a profit at $10 to $12 a ton; steel rails were sold with a liberal return to capital at $17.50 per ton, and bar iron entered a profitable market at 95 cents per hundred.

After business had been reorganized on a lower basis of capital liabilities, thousands of commodities were produced with profit at prices such that they began to find their way into foreign marts and, in competition with foreign-made goods, undersold them. Europe was startled at our newly developed commercial strength. Our appearance with shiploads of products that others could not manufacture at competitive prices made the world realize that in the Western continent were resources and industrial establishments that in an open market with free competition might bid defiance to all Europe. Under such circumstances bills of exchange drawn against the sale of American goods formed a true basis for commercial bank loans.

What was the result, however, when the commercial bank extended its support to the capitalization of new promotions and became the chief factor in the "industrial speculation" that grew out of this sudden national awakening? Instead of limiting the commercial banking business to the service of a commercial constituency, instead of devoting the funds of commercial banks to the accommodation of producers and merchants, a system of underwriting new flotations was inaugurated. This was not a novel experience. Similar practice is recalled by the ex-Assistant Secretary of the Treasury, by reference to the "real estate" restriction in the National Bank

Act. Back of the law forbidding the banks to loan on real-estate securities may be seen the long periods of industrial depression and financial reorganization following the panics of 1825, 1837, and 1847.

Each period of prosperity immediately preceding these crises had been one of capitalization of new promotions. At that time, however, speculation was based on the possibilites of increasing profits to be derived from the development of agricultural resources. Westward immigration had appropriated for use large areas, a new empire of grain lands for which new transportation development had opened a market to the seaboard. New cotton, tobacco, and hemp lands enlarged this area to such an extent that the territory appropriated but still undeveloped was larger than the old Atlantic slope to which capital had before confined its investments. In these new areas all other demands gave way to the clamor for new capital, and the commercial banks attempted to supply this demand.

The failure of some eight hundred commercial banking institutions during 1837 and 1838 was the result of this kind of bank-credit employment; the failure of nearly fifteen hundred banks during the next three decades of State banking based on investment securities brought to the mind of practical bankers the character and purpose of the commercial bank. In 1903 and 1904, while Europe was going through the throes of financial reorganization, our farmers were blessed with large crops and high prices; a kind and bountiful Providence filled the granaries and the storehouses of the great West and South, permitting us to levy tribute on a distressed world. Temporarily judgment of our financial folly was suspended, but the instruments of self-destruction were still in the hands of an unthinking speculative public. These instruments of destruction were placed in the hands of speculators by commercial banks in the great financial centers. They were not used alone in self-destruction, but they carried merchant and manufacturer with them.

224. RESULTS OF INVESTMENT LOANING BY COMMERCIAL BANKS[1]

BY WILLIAM A. SCOTT

When commercial banks create their own demand obligations, either in the form of checking accounts or notes against investment securities, they are creating an obligation which they may not be

[1] Adapted from "Investment vs. Commercial Banking," *Proceedings of the Second Annual Convention of the Investment Bankers' Association of America*, 1913, pp. 81–84.

able to meet. When they exchange credit accounts for commercial securities, the ordinary processes of commerce bring into their possession day by day the means of meeting the obligations which they create; but when they create such obligations against investment securities the funds regularly coming into their possession for the meeting of such obligations are quite inadequate for the purpose. The enterprises which these investment securities represent, however productive they may be, bring into existence only after a series of years an amount of produce sufficient to offset the original investment. If such an enterprise produces a profit of 10 per cent a year, it takes ten years to reproduce itself. If only 5 per cent profit per annum is produced, twenty years are required. The demand obligations created by the banks, however, must be met long before these periods of time elapse.

The result of such loans is overexpansion or inflation of credit, that is, the banks have created obligations against themselves which they are not able to meet in the normal course of business. So long as business is prosperous all goes well; but as soon as there is a break somewhere in the industrial system and borrowers for investment uses are unable to pay, serious trouble follows. The only means by which the banks can meet such obligations when they mature is by the sale on the market of the securities in their possession not yet due, and while an individual bank may be able to transfer such securities to another institution, and the banks of a country as a whole sometimes may be able to transfer them to the banks of other countries, the danger is always present that such transfers cannot be made, and even if they can be, only at a great sacrifice. Forced liquidation, in other words, is a necessary outcome of overexpansion of credit caused by the exchange of investment securities for checking accounts, and if such forced liquidation is general throughout a country and attempted on a large scale, it can only be accomplished through the agency of the bankruptcy courts, and when these function on a large scale, commercial crisis is inevitable.

The fact that the paper of customers is drawn for thirty, sixty, ninety days, four or six months enables the banker to force this liquidation process upon customers, but this fact does not protect the country from the consequences of such liquidation. Sacrifice of property, fall in prices, commercial failures on a large scale, and a general readjustment of commercial and industrial relations cannot thus be avoided.

B. The Federal Reserve System and Investment Operations

225. EFFECT OF THE NEW SYSTEM ON STOCK EXCHANGE SPECULATION[1]

BY THOMAS CONWAY AND ERNEST M. PATTERSON

The effect of the Federal Reserve Act upon stock exchange speculation in New York City will be watched with the greatest interest by everyone interested in banking. Some will look with concern lest the new law, by suddenly depriving stock and investment markets of funds, will create disorganization, palsying new construction which must be financed through sale of securities, and unsettling the value of collateral upon which thousands of business men have negotiated loans to carry on their enterprises. Others will be interested to see whether New York's power and prestige will be diverted to other centers with the localization of funds in these new districts. Everyone will be interested to know whether it will destroy the efficacy of the so-called "Money Trust," which is founded primarily upon the control of a comparatively small number of banking institutions that hold these bankers' deposits from the other sections of the country.

It is impossible to answer any of these questions authoritatively. It would appear that the day of exceedingly cheap money for stock exchange uses is past. Without a law which renders an enormous amount of money idle, thereby enabling the New York banks to attract it to New York with a 2 per cent interest rate, it will be impossible for the New York institutions to offer call money at an average rate of about 2½ per cent, as has been the case within the last ten years.

The stock speculator and the investment banker who are carrying securities until such time as they can dispose of them will have to pay rates of interest approximating those which have prevailed abroad and which are determined by commercial borrowers. Call loans will probably be offered at attractive rates in limited amount, but the great bulk of money will probably be secured at interest rates of 4 per cent or over. Certain New York bankers expressed the opinion before the Congressional committee that it would be impossible to deprive New York of funds for stock exchange uses so long as the borrowers were willing to pay a good rate of interest. A compara-

[1] Adapted from *The Operation of the New Bank Act*, pp. 364–66. (J. B. Lippincott Co., 1914.)

tively small number of New York City banks now have funds of 15,000 other banks. These gentlemen predicted that these institutions could induce the out-of-town banks to rediscount commercial paper at, say, 3 or 4 per cent, which might then be the rate, forwarding the proceeds to New York to be loaned out upon stock exchange collateral at, say, 5 or 6 per cent. The profits to be derived from this transaction are, in their opinion, so obvious as to tempt many bankers. Such a practice, if it should develop to any large degree, would be unfortunate, for by indirection it would work an evasion of the plain intent of the act.

Looked at from another standpoint, however, the matter does not seem to be as serious as might appear on the surface. There is abundant testimony to support the statement that it is very difficult to carry on profitable speculative operations on a large scale with high interest rates; but so long as the money is not being used to conduct feverish and undesirable speculation, from a national standpoint, there is no reason why New York should not be allowed to attract it.

226. THE FEDERAL RESERVE SYSTEM AND INDUSTRIAL EXPANSION[1]

By C. W. BARRON

The expansion that is made possible by the economizing and lowering of bank reserves under the new bank law must go primarily to constructive industry. With the lowering of interest rates there will be rising prices for stocks and bonds until the returns are so low that money is invited into the constructive field. Afterward it will require all the power of the Federal Reserve Board to hold Wall Street and the expansive building industry of the country in check.

Overinvestment in stocks and bonds is an absolute requisite in the construction and upbuilding of this country. When high interest rates are maintained, as in the past year, construction slows down, and the moment there is a restoration of confidence, or prospects for higher investment prices, as at the opening of 1914, there is a sudden outpouring of investment moneys. The undigested bonds are taken from the banks and the bank loans by the hundred million.

We have money enough and credit enough to carry our commercial transactions and four or five years of overinvestment. We need at

[1] Adapted from *The Federal Reserve Act*, pp. 68–73. (Boston News Publishing Co., 1914.)

least three years of construction or overinvestment to be carried in bank loans before properties are in shape for digestion by investors. But do we need more than five years? And will there be danger under the new bank act in a few years of finding that we are six or seven years overinvested, our credit reserves exhausted, and our currency base endangered?

That question can be answered only by the new Federal Reserve Board, and after all they may have very little to say about it at first. After rediscounting enough commercial bills to earn dividends on the new Reserve Bank shares and to insure against contraction, they must rest their activities in this direction.

A steady bank rate and the assurance of relief when needed will alone be sufficient to give confidence for construction expansion outside the railroads.

With confidence credit comes fully forth, and with full credit there is little need for currency or Treasury reserves. Until one or the other is called for, the Federal Board can have little control unless it undertakes to regulate the future in finance and raise the money rate and curtail credit when confidence is in full swing.

The lending outside the reserve system based on demand promises will be greater than within the system, and especially so as regards construction and stocks and bonds. Here will be the first sign of trouble in future years.

227. COMMERCIAL PAPER UNDER THE NEW SYSTEM[1]

BY EUGENE E. AGGER

As a basis of the projected discount market, the act provides for three kinds of paper as follows: (*a*) commercial paper, namely, "notes, drafts, and bills of exchange arising out of actual commercial transactions," that is, paper "issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used or are to be used for such purposes"; (*b*) commodity paper, namely, paper secured by "staple agricultural products or other goods, wares, or merchandise"; and, lastly, (*c*) acceptances growing out of exports and imports. But while the act itself imposes certain requirements on the paper eligible for rediscount at, or for purchase by, the Federal Reserve Banks, it imposes on the Federal Reserve Board the responsibility of determining in detail the character of such paper.

[1] Adapted from "Commercial Paper and the Federal Reserve Board," *Annals of the American Academy of Political and Social Science*, LXIII (1916), 106–9.

In view of the peculiar development of American credit methods n the past, there arose, after the passage of the Federal Reserve Act, the liveliest discussion as to the manner in which the Reserve Board should exercise the responsibility thus entrusted to it. Owing to the specific provisions of the act there was no serious difference of opinion about commodity paper and about acceptances growing out of exports and imports. But with respect to the "notes, drafts, and bills of exchange arising out of actual commercial transactions" the discussion waxed warm. The issue was drawn between what is known as "single-name paper" and what, on the other hand, is known as "double-name paper." There is no occasion in this place for referring to the sundry interesting representations made by both sides. Suffice it to say that the question involved, first, the desirability of including single-name paper at all, and, second, assuming a definition of character broad enough to include it, the further question as to whether for discount purposes there should not be a discrimination against single-name paper in favor of double-name paper. In view of the widespread dependence upon single-name paper in the United States, however, there was also much difference of opinion as to whether the two-name system could be successfully propagated here.

After setting forth clearly the essentials of the question the committee of banking experts which had been selected to study the whole question of the organization of reserve banks came to the conclusion that it was clearly the intention of Congress to include in the paper eligible for rediscount single-name paper having the prescribed qualifications. It based its conclusion on the fact that the act specifically mentioned not only instruments the proceeds of which had been used for agricultural, industrial, and commercial transactions, but also those which were to be used for such purposes. A two-name bill assumes a transaction completed; hence a contemplated transaction could hardly give rise to a two-name bill. But the committee pointed out that while single-name paper was to be included there must be no doubt about the use of the proceeds for strictly commercial purposes.

The committee then discussed the means that might be employed for preventing the use of the proceeds of rediscounted paper for the forbidden purposes of obtaining current capital and of financing speculation. It pointed out that in practice it would be impossible as well as unnecessary to insure the use in the permitted directions of the particular sums advanced by the banks on rediscounted paper as long as there was the assurance that "an equal sum drawn from

the liquid resources of the concern receiving the advance is so applied." In other words, according to the committee it is a question simply as to whether the person or firm getting the advance "is engaged in actual business of the kind referred to and is in liquid condition." That the committee favored, however, as full a restriction of single-name paper as possible is indicated in the statement that "wherever possible the proportion of single-name paper allowed to figure in the rediscounts of a Federal Reserve Bank should be confined to the lowest basis consistent with the welfare and convenience of the business community."

The committee also suggested means of accelerating the development of two-name paper and, at the same time, of restricting single-name paper. It looked with favor on a "differential rate" slightly in favor of double-name paper. It suggested the possibility of "restricting the total amount of single-name paper admitted to rediscount to a given percentage of the gross rediscounts of the Reserve Bank in question." Along this same line the committee deemed worthy of mention also that note brokers might be required under certain conditions personally to endorse the single-name paper which they offer for sale to the banks of the Reserve System.

At the conclusion of its discussion of this subject the committee summed up its recommendations and enumerated the points that it considered essential in determining the practice of the reserve banks. Single-name paper must of course be considered eligible, but the committee stated that owing to the possibility of using single-name paper for purposes of speculation the responsibility must devolve on the member banks to see to it that funds originally derived from the sale of single-name paper are properly applied. Furthermore, the committee believed that the drawer of single-name paper should secure his financial responsibility by a proper statement and that, when presented for rediscount, his paper should have, in addition to the member bank's endorsement, a statement signed by an officer of the bank that to his "best knowledge and belief" the proceeds of the paper had been or were to be used for business of a strictly current nature and not for what might be construed as merely an investment.

As to two-name paper, the committee believed that by a customary credit statement the responsibility of either maker or endorser should be reasonably assured by the member bank presenting the paper for rediscount, and, further, that in the original discount the practice ought to be to require that at least one of the parties involved file a

statement with the member bank. Lastly, the committee recommended separate schedules and statements for the two kinds of paper.

The action taken by the Reserve Board itself in connection with the paper eligible for rediscount and with that eligible for the open market operations of the reserve banks is to be found in a series of circulars and regulations issued by the Board from time to time, as circumstances seemed to demand.

228. REGULATIONS REGARDING COMMERCIAL PAPER[1]

I. GENERAL PRINCIPLES

The Federal Reserve Board, under section 13 of the Federal Reserve Act, has the right to determine or define the character of paper eligible for discount, to wit, "notes, drafts, and bills of exchange arising out of actual commercial transactions; that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used or are to be used for such purposes."

Bearing in mind the requirements of the present situation, the Federal Reserve Board believes that it would be inadvisable at this time to issue regulations placing a narrow or restricted interpretation upon the section defining the character of paper eligible for discount. It has, therefore, been decided not at this time to enter upon the discussion of the question of single- or double-name paper, but to admit both forms of bills to rediscount with the Federal Reserve Banks.

The Federal Reserve Board proposes, however, to prescribe the following basic principles for the guidance of Federal Reserve Banks and member banks.

a) No bill shall be admitted to rediscount by Federal Reserve Banks the proceeds of which have been or are to be applied to permanent investment, and Regulation No. 2 has been formulated with the intention of giving effect to this principle, and is herewith inclosed.

b) Maturities of discounted bills should be well distributed. It is the well-established practice of European reserve banks to invest only in obligations maturing within a short time. It is a general rule not to purchase paper having more than 90 days to run. The maturities of these notes and bills are so well distributed as to enable those banks within a short time to strengthen their hold on the general money market by collecting at

[1] Adapted from *Federal Reserve Board Circular No. 13*, November 10, 1914, and Regulation B, January 25, 1915.

maturity or by reinvesting at a higher rate a very substantial proportion of their assets. Acting on this principle, the Federal Reserve Banks should be in position to liquidate, whenever such a course is necessary, substantially one-third of all their investments within a period of 30 days. Departure from this principle will endanger the safety of the system. It is observance of this principle that affords justification for permitting member banks to count balances with Federal Reserve Banks as the equivalent of cash reserves.

c) Bills should be essentially self-liquidating.

Safety requires not only that bills[1] held by the Federal Reserve Banks should be of short and well-distributed maturities, but, in addition, should be of such character that it is reasonably certain that they can be collected when they mature. They ought to be essentially "self-liquidating," or, in other words, should represent in every case some distinct step or stage in the productive or distributive process—the progression of goods from producer to consumer. The more nearly these steps approach the final consumer the smaller will be the amount involved in each transaction as represented by the bill, and the more automatically self-liquidating will be its character.

Double-name paper drawn on a purchaser against an actual sale of goods affords, from the economic point of view, prima facie evidence of the character of the transaction from which it arose. Single-name notes, now so freely used in the United States, may represent the same kind of transactions as those bearing two names. Inasmuch, however, as the single-name paper does not show on its face the character of the transaction out of which it arose—an admitted weakness of this form of paper—it is incumbent upon each Federal Reserve Bank to insist that the character of the business and the general status of the concern supplying such paper should be carefully examined in order that the discounting bank may be certain that no such single-name paper has been issued for purposes excluded by the act, such as investments of a permanent or speculative nature. Only careful inquiry on these points will render it safe and proper for a Federal Reserve Bank to consider such paper a "self-liquidating" investment at maturity.

II. STATUTORY REQUIREMENTS

The Federal Reserve Act provides that a bill, other than an acceptance, to be eligible for rediscount by a member bank with a

[1] For brevity's sake the words "bills" and "notes" whenever used in these paragraphs include bills, notes, and drafts, as specified in the act.

Federal Reserve Bank, must comply with the following statutory requirements:

a) It must be indorsed by a member bank, accompanied by a waiver of demand, notice, and protest.

b) It must have a maturity at the time of discount of not more than 90 days, except as provided by Regulation C, accompanying *Circular No. 4*, Series of 1915.

c) It must have arisen out of actual commercial transactions; that is, be a bill which has been issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been or are to be used for such purposes.

d) It must not have been issued for carrying or trading in stocks, bonds, or other investment securities except bonds and notes of the Government of the United States; but the pledge of goods as security for a bill is not prohibited.

III. CHARACTER OF PAPER ELIGIBLE

The Federal Reserve Board, exercising its statutory right to define the character of a bill eligible for rediscount at a Federal Reserve Bank, has determined:

a) That it must be a bill the proceeds of which have been used or are to be used in producing, purchasing, carrying, or marketing goods in one or more of the steps of the process of production, manufacture, and distribution.

b) That no bill is "eligible" the proceeds of which have been used or are to be used:

(1) For permanent or fixed investments of any kind, such as land, buildings, machinery (including therein additions, alterations, or other permanent improvements, except such as are properly to be regarded as costs of operation). It may be considered as sufficient evidence of compliance with this requirement if the borrower shows, by statement or otherwise, that he has a reasonable excess of quick assets over his current liabilities on open accounts, short-term notes, or otherwise;

(2) For investments of a merely speculative character, whether made in goods or otherwise.

IV. METHOD OF CERTIFYING ELIGIBILITY

Any member bank applying for rediscount of a bill after July 15, 1915, must certify in its letter of application, over the signature of a duly authorized officer, that to the best of its knowledge and belief

the bill was issued for one of the purposes mentioned in the above paragraphs and conforms to section 13 of the Federal Reserve Act and to this regulation.

It is recommended that every member bank maintain a file which shall contain original signed statements of the financial condition of borrowers, or true copies thereof, certified by a member bank or by a notary public, designating where the original statement is on file. Statements should contain all the information essential to a clear and correct knowledge of the borrower's credit and of his method of borrowing. A schedule specifying certain information, which it is desirable that such statements should include, is hereto appended.

Member banks shall certify in their letters of application for rediscount whether the paper offered for rediscount is depositor's or purchased paper, or paper rediscounted for other member banks, and whether statements are on file. When it does not appear that such statements are on file, except as hereinafter provided under (1), (2), and (3) below, the Federal Reserve Bank shall satisfy itself as to the eligibility of the paper offered for rediscount, and member banks will be expected to use such statement forms, identifying stamps, etc., as may be prescribed by the respective Federal Reserve Banks.

Any member bank rediscounting with a Federal Reserve Bank paper acquired from another member bank, with the indorsement of such member bank, may accept such member's certification regarding the character of the paper and the existence of the necessary statements.

Statements of the borrower's financial condition may be waived where bills offered for rediscount have been discounted by member banks for any of their depositors in the following cases:

(1) If the bill bears the signatures of the purchaser and the seller of the goods and presents prima facie evidence that it was issued for goods actually purchased or sold; or

(2) If the aggregate amount of obligations of such depositor actually rediscounted and offered for rediscount does not exceed $5,000, but in no event a sum in excess of 10 per centum of the paid-in capital of the member bank; or

(3) If the bill be specifically secured by approved warehouse receipts covering readily marketable staples:

Provided, however, That the bank shall certify to these conditions on the application blank in a manner to be designated by the respective Federal Reserve Banks.

V. SIX MONTHS' AGRICULTURAL PAPER[1]

Each Federal Reserve Bank may receive for discount bills which have a maturity of more than three but less than six months, in an aggregate amount equal to a percentage of its capital stock to be fixed from time to time for each Federal Reserve Bank by the Federal Reserve Board.

Provided, however, That such bills are drawn or issued for agricultural purposes or are based on live stock; that is, that their proceeds have been used or are to be used for agricultural purposes, including the breeding, raising, fattening, or marketing of live stock; and

Provided, further, That such bills comply in all other respects with each and every provision of Regulation B (above).

229. TRADE ACCEPTANCES[2]

I. DEFINITION

In this regulation the term "trade acceptance" is defined as a bill of exchange of the character hereinafter described, drawn to order, having a definite maturity and payable in dollars in the United States, the obligation to pay which has been accepted by an acknowledgment, written or stamped and signed across the face of the instrument by the company, firm, corporation, or person upon whom it is drawn; such agreement to be to the effect that the acceptor will pay at maturity, according to its tenor, such draft or bill without qualifying conditions.

II. CHARACTER OF PAPER ELIGIBLE

A trade acceptance to be eligible for rediscount, under section 13, with a Federal Reserve Bank at the rate to be established for trade acceptances—

a) Must be indorsed by a member bank, accompanied by waiver of demand notice and protest.

b) Must have a maturity at the time of discount of not more than 90 days.

c) Must be accepted by the purchaser of goods sold to him by the drawer of the bill, and the bill must have been drawn against indebtedness expressly incurred by the acceptor in the purchase of such goods.

[1] Regulation C, January 25, 1915.

[2] Adapted from *Federal Reserve Board, Circular No. 16,* July 15, 1915.

III. METHOD OF CERTIFYING ELIGIBILITY

A trade acceptance must bear on its face or be accompanied by evidence in form satisfactory to the Federal Reserve Bank that it was drawn by the seller of the goods on the purchaser of such goods. Such evidence may consist of a certificate on or accompanying the acceptance, to the following effect: "The obligation of the acceptor of this bill arises out of the purchase of goods from the drawer." Such certificate may be accepted by the Federal Reserve Bank as sufficient evidence; provided, however, that the Federal Reserve Bank, in its discretion, may inquire into the exact nature of the transaction underlying the acceptance.

230. THE ADVANTAGES OF THE TRADE ACCEPTANCE[1]

There can be no question of the desirability of developing trade acceptances in the United States in the interests of banking, commerce, and industry. In all modern banking systems the acceptance is the most desirable form of investment, and it is the most satisfactory method of settlement in the business world.

The directors of the National Association of Credit Men have recorded their belief "that trade acceptances present conveniences and economies which should appeal to the encouragement and support of commercial credit grantors," and that "the trade acceptance system would eliminate certain serious evils which have developed with the increase of commercial credits on an open-account system, and of which the unearned discounts, the abuse of sales terms, and the assignment of accounts receivable are the more prominent."

Acceptance is of benefit to the seller of goods in a great many ways, among which the following are noteworthy:

1. It completes the transaction, joining the payment with the shipment or invoice.

2. It eliminates open book accounts, and substitutes bills receivable, or actual cash from discounted bills, in the assets of the seller.

3. It gives to the seller additional credit facilities, in that such business paper discounted does not necessarily count in the amount of credit extended or authorized.

4. By reason of its "double-name" aspect it has a broader and better market, and lessens interest rates for the seller.

5. It assures promptness and avoids unjustified extensions.

[1] Adapted from *Federal Reserve Bulletin*, March, 1916, pp. 100–101.

6. It promotes economy and efficiency of operation by establishing co-operation.

Acceptances are advantageous to the purchaser (1) in eliminating open accounts; (2) in closing the transaction at the time of purchase; (3) in providing payment coincident with purchase; (4) in facilitating adjustments and settlements.

C. Financial Concentration and Control

231. OUR FINANCIAL OLIGARCHY[1]

BY LOUIS D. BRANDEIS

The dominant element in our financial oligarchy is the investment banker. Associated banks, trust companies, and life insurance companies are his tools. Controlled railroads, public-service and industrial corporations are his subjects. Though properly but middlemen, these bankers bestride as masters America's business world, so that practically no large enterprise can be undertaken successfully without their participation or approval. These bankers are, of course, able men possessed of large fortunes; but the most potent factor in their control of business is not the possession of extraordinary ability or huge wealth. The key to their power is combination—concentration, intensive and comprehensive—advancing on three distinct lines:

First: There is the obvious consolidation of banks and trust companies; the less obvious affiliations—through stock holdings, voting trusts, and interlocking directorates—of banking institutions which are not legally connected; and the joint transactions, gentlemen's agreements, and "banking ethics" which eliminate competition among the investment bankers.

Second: There is the consolidation of railroads into huge systems, the large combinations of public-service corporations and the formation of industrial trusts, which, by making businesses so "big" that local, independent banking concerns cannot alone supply the necessary funds, has created dependence upon the associated New York bankers.

But combination, however intensive, along these lines only could not have produced the Money Trust; another and more potent factor of combination was added.

Third: Investment bankers, like J. P. Morgan & Co., dealers in bonds, stocks, and notes, encroached upon the functions of the three

[1] Adapted from *Other People's Money, and How the Bankers Use It*, pp. 4–22. (Frederick A. Stokes Co., 1914. Originally published in *Harper's Weekly*.)

other classes of corporations with which their business brought them into contact. They became the directing power in railroads, public-service and industrial companies through which our great business operations are conducted—the makers of bonds and stocks. They became the directing power in the life insurance companies and other corporate reservoirs of the people's savings—the buyers of bonds and stocks. They became the directing power also in banks and trust companies—the depositaries of the quick capital of the country—the life-blood of business, with which they and others carried on their operations. Thus four distinct functions, each essential to business, and each exercised, originally, by a distinct set of men, became united in the investment banker. It is to this union of business functions that the existence of the Money Trust is mainly due.

The investment bankers were not content merely to deal in securities, enormous as was that field in itself. They desired to manufacture them also. They became promoters, or allied themselves with promoters. Thus it was that J. P. Morgan & Co. formed the Steel Trust, the Harvester Trust, and the Shipping Trust. And, adding the duties of undertaker to those of midwife, the investment bankers became, in times of corporate disaster, members of security-holders' "Protective Committees"; then they participated as "Reorganization Managers" in the reincarnation of the unsuccessful corporations, and ultimately became directors. It was in this way that the Morgan associates acquired their hold upon the Southern Railway, the Northern Pacific, the Reading, the Erie, the Pere Marquette, the Chicago & Great Western, and the Cincinnati, Hamilton & Dayton. Often they insured the continuance of such control by the device of the voting trust; but even where no voting trust was created a secure hold was acquired upon reorganization. It was in this way also that Kuhn, Loeb & Co. became potent in the Union Pacific and in the Baltimore & Ohio.

But the banker's participation in the management of corporations was not limited to cases of promotion or reorganization. An urgent or extensive need of new money was considered a sufficient reason for the banker's entering a board of directors. Often without even such excuse the investment banker has secured a place upon the Board of Directors through his powerful influence or the control of his customers' proxies. Such seems to have been the fatal entrance of Mr. Morgan into the management of the then prosperous New York,

New Haven & Hartford Railroad in 1892. When once a banker has entered the Board—whatever may have been the occasion—his grip proves tenacious and his influence usually supreme, for he controls the supply of new money.

The investment banker is naturally on the lookout for good bargains in bonds and stocks. Like other merchants, he wants to buy his merchandise cheap. But when he becomes director of a corporation he occupies a position which prevents the transaction by which he acquires its corporate securities from being properly called a bargain. Can there be real bargaining where the same man is on both sides of a trade? The investment banker, through his controlling influence on the Board of Directors, decides that the corporation shall issue and sell the securities, decides the price at which it shall sell them, and decides that it shall sell the securities to himself. The fact that there are other directors besides the banker on the Board does not, in practice, prevent this being the result. The banker, who holds the purse strings, becomes usually the dominant spirit. Through voting trusteeships, exclusive financial agencies, membership on executive or finance committees, or by mere directorships, J. P. Morgan & Co. and their associates held such financial power in at least 32 transportation systems, public-utility corporations, and industrial companies—companies with an aggregate capitalization of $17,273,000,000. Mainly for corporations so controlled J. P. Morgan & Co. procured the public marketing in ten years of security issues aggregating $1,950,000,000. This huge sum does not include any issues marketed privately, nor any issues, however marketed, of intrastate corporations. Kuhn, Loeb & Co. and a few other investment bankers exercise similar control over many other corporations.

Such control of railroads, public-service and industrial corporations assures to the investment bankers an ample supply of securities at attractive prices; and merchandise well bought is half sold. But these bond and stock merchants are not disposed to take even a slight risk as to their ability to market their goods. They saw that if they could control the security-buyers, as well as the security-makers, investment would, indeed, be "a happy hunting-ground"; and they have made it so.

The numerous small investors cannot, in the strict sense, be controlled; but their dependence upon the bankers insures their

being duly influenced. A large part, however, of all bonds issued and of many stocks are bought by the prominent corporate investors; and most prominent among these are the life insurance companies, the trust companies, and the banks. The purchase of a security by these institutions not only relieves the banker of the merchandise, but recommends it strongly to the small investor, who believes that these institutions are wisely managed. These controlled corporate investors are not only large customers, but may be particularly accommodating ones. Individual investors are moody. They buy only when they want to do so. They are sometimes inconveniently reluctant. Corporate investors, if controlled, may be made to buy when the bankers need a market. It was natural that the investment bankers proceeded to get control of the great life insurance companies, as well as of the trust companies and the banks.

The goose that lays golden eggs has been considered a most valuable possession. But even more profitable is the privilege of taking the golden eggs laid by somebody else's goose. The investment bankers and their associates now enjoy that privilege. They control the people through the people's own money. If the bankers' power were commensurate only with their wealth, they would have relatively little influence on American business. Vast fortunes like those of the Astors are no doubt regrettable. They are inconsistent with democracy. They are unsocial. And they seem particularly unjust when they represent largely unearned increment. But the wealth of the Astors does not endanger political or industrial liberty. It is insignificant in amount as compared with the aggregate wealth of America, or even of New York City. It lacks significance largely because its owners have only the income from their own wealth. The Astor wealth is static. The wealth of the Morgan associates is dynamic. The power and the growth of power of our financial oligarchs come from wielding the savings and quick capital of others. In two of the three great life insurance companies the influence of J. P. Morgan & Co. and their associates is exerted without any individual investment by them whatsoever. Even in the Equitable, where Mr. Morgan bought an actual majority of all the outstanding stock, his investment amounts to little more than one-half of 1 per cent of the assets of the company. The fetters which bind the people are forged from the people's own gold.

But the reservoir of other people's money, from which the investment bankers now draw their greatest power, is not the life insurance companies, but the banks and trust companies. Bank deposits represent the really quick capital of the nation. They are the life-blood of businesses. Their effective force is much greater than that of an equal amount of wealth permanently invested. The 34 banks and trust companies which the Pujo Committee declared to be directly controlled by the Morgan associates held $1,983,000,000 in deposits. Control of these institutions means the ability to lend a large part of these funds, directly and indirectly, to themselves, and, what is often even more important, the power to prevent the funds being lent to any rival interests. These huge deposits can, in the discretion of those in control, be used to meet the temporary needs of their subject corporations. When bonds and stocks are issued to finance permanently these corporations, the bank deposits can, in large part, be loaned by the investment bankers in control to themselves and their associates, so that securities bought may be carried by them until sold to investors. Or these bank deposits may be loaned to allied bankers, or jobbers in securities, or to speculators, to enable them to carry the bonds or stocks. Easy money tends to make securities rise in the market. Tight money nearly always makes them fall. The control by the leading investment bankers over the banks and trust companies is so great that they can often determine, for a time, the market for money by lending or refusing to lend on the stock exchange. In this way, among others, they have power to affect the general trend of prices in bonds and stocks. Their power over a particular security is even greater. Its sale on the market may depend upon whether the security is favored or discriminated against, when offered to the bank and trust companies, as collateral for loans.

Furthermore, it is the investment banker's access to other people's money in controlled banks and trust companies which alone enables any individual banking concern to take so large a part of the annual output of bonds and stocks. The banker's own capital, however large, would soon be exhausted. And even the loanable funds of the banks would often be exhausted but for the large deposits made in those banks by the life insurance, railroad, public-service, and industrial corporations which the bankers also control.

But the power of the investment banker over other people's money is often more direct and effective than that exerted through

controlled banks and trust companies. J. P. Morgan & Co. achieve the supposedly impossible feat of having their cake and eating it too. They buy the bonds and stocks of controlled railroads and industrial concerns, and pay the purchase price, and still do not part with their money. This is accomplished by the simple device of becoming the bank of deposit of the controlled corporations instead of having the company deposit in some merely controlled bank in whose operations others have at least some share. When J. P. Morgan & Co. buy an issue of securities, the purchase money, instead of being paid over to the corporation, is retained by the banker for the corporation, to be drawn upon only as the funds are needed by the corporation. And as the securities are issued in large blocks, and the money raised is often not all spent until long thereafter, the aggregate of the balances remaining in the banker's hands are huge. Thus J. P. Morgan & Co. (including their Philadelphia house, called Drexel & Co.) held on November 1, 1912, deposits aggregating $162,491,819.65.

232. THE SATELLITES OF THE "MONEY TRUST"[1]

BY THE PUJO COMMITTEE

Beyond these inner groups and subgroups are banks and bankers throughout the country who co-operate with them in underwriting or guaranteeing the sale of the securities offered to the public, and who also act as distributors of such securities. It was impossible to learn the identity of the corporations, owing to the unwillingness of the members of the inner group to disclose the names of their underwriters, but sufficient appears to justify the statement that there are at least hundreds of them and that they extend into many of the cities throughout this and foreign countries.

The patronage thus proceeding from the inner group and its subgroups is of great value to these banks and bankers, who are thus tied by self-interest to the great issuing houses and may be regarded as a part of this vast financial organization. Such patronage yields no inconsiderable part of the income of these banks and bankers without much risk on account of the facilities of the principal groups for placing issues of securities through their domination of great banks and trust companies and their other domestic affiliations and

[1] Adapted from Report of the Committee Appointed to Investigate the Concentration of Control of Money and Credit, 62d Cong., 3d sess., No. 1593, pp. 132–33.

their foreign connections. The underwriting commissions on issues made by this inner group are easily earned and do not ordinarily involve the underwriters in the purchase of the underwritten securities. Their interest in the transaction is generally adjusted, unless they choose to purchase part of the securities, by the payment to them of a commission. There are, however, occasions on which this is not the case. The underwriters are then required to take the securities. Bankers and brokers are so anxious to be permitted to participate in these transactions under the lead of the inner group that as a rule they join when invited to do so, regardless of their approval of the particular business, lest by refusing they should thereafter cease to be invited.

In the case of the New York subway financing of $170,000,000 of bonds by Messrs. Morgan & Co. and their associates, Mr. Davison estimated that there were 100 to 125 such underwriters who were apparently glad to agree that Messrs. Morgan & Co., the First National Bank, and the National City Bank should receive 3 per cent, equal to $5,100,000, for forming this syndicate, thus relieving themselves from all liability, whilst the underwriters assumed the risk of what the bonds would realize and of being required to take their share of the unsold portion.

The possibility of competition between these banking houses in the purchase of securities is further removed by the understanding between them and others that one will not seek, by offering better terms, to take away from another a customer which it has heretofore served, and by corollary of this, namely, that where given bankers have once satisfactorily united in bringing out an issue of a corporation they shall also unite in bringing out any subsequent issue of the same corporation. This is described as a principle of banking ethics.

233. THE DEFENSE OF FINANCIAL CONCENTRATION[1]

By J. P. MORGAN & CO.

We venture to point out that such "concentration" as has taken place in New York and other financial centers has been due, not to the purpose and activities of men, but primarily to the operation of our antiquated banking system, which automatically compels interior banks to "concentrate" in New York City hundreds of millions of

[1] Adapted from a letter in response to the invitation of the Pujo Committee, February 25, 1913, pp. 3–26.

reserve funds, and, next, to economic laws which in every country create some one city as the great financial center, and which draw to it, in enormous volume, investment funds for the development of industrial enterprises throughout the country.

Just as grain and cotton and manufactures are commodities subject to the unchanging laws of supply and demand, so, in the same way, money and credits are commodities subject to the same unvarying laws, but far more intensely; for while bulky merchandise is not always immediately transferable upon demand, money and credits are so liquid as to be transferable by telegraph all over the world. Since the beginning of organized industry and commerce covering more than two centuries in England, France, and Germany and one hundred years in America, men never yet have succeeded in overriding economic law; and, further, such an achievement is impossible, even though one were willing to attribute sinister motives to the leading men of business in the chief cities of this country.

In the preamble to the House Resolution under which your Committee acts we find this statement: "Whereas it has been further charged and is *generally believed* [the italics are our own] that these same groups of financiers are enabled to regulate the interest rates for money, to create, avert, and compose panics, etc." The factors which determine interest rates are not local in their source, but are world-wide, being determined and—owing to the freedom of international exchange—being regulated by the average demand for credit throughout the world's money markets. If any man or group of men had the ability and resources—which they have not—to withhold credits in any one market, like New York, the situation would ordinarily be promptly relieved by the automatic inflow of credits from some altogether foreign source.

We regret that a belief so incredible, so abhorrent, and so harmful to the country as that the panic of 1907 was actually due to the machinations of certain powerful men should for a moment have found lodgment anywhere.

No one will deny that men frequently are selfish, ambitious, and reckless, but in order to sustain the theory that the panic of 1907 was "engineered" one must attribute some motive for their assumed achievements. And by no process of reasoning can such motive be imagined, because of the fact that men possessing even a fraction of the influence and resources attributed to them always are the ones holding the largest amounts of fixed investments which, by disturbed

financial conditions, always suffer most severely. It is impossible, therefore, to imagine a motive on the part of such persons as would lead to a campaign of self-destruction.

The resolution under which your Committee acts further states that a comparatively small group of men "have wielded a power over the business, commerce, credits, and finances of the country that is despotic and perilous and is daily becoming more perilous to the public welfare."

For the maintenance of such an impossible economic theory there have been spread before your Committee elaborate tables of so-called interlocking directorates from which exceedingly mistaken inferences have been publicly drawn. In these tables it is shown that 180 bankers and bank directors serve upon the boards of corporations having resources aggregating twenty-five billion dollars, and it is implied that this vast aggregate of the country's wealth is at the disposal of these 180 men. But such an implication rests solely upon the untenable theory that these men, living in different parts of the country, in many cases personally unacquainted with each other, and in most cases associated only in occasional transactions, vote always for the same policies and control with united purpose the directorates of the 132 corporations on which they serve. The testimony failed to establish any concerted policy or harmony of action binding these 180 men together, and as a matter of fact no such policy exists. The absurdity of the assumption of such control becomes more apparent when one considers that on the average these directors represent only one-quarter of the memberships of their boards. It is preposterous to suppose that every "interlocking" director has full control in every organization with which he is connected, and that the majority of directors who are not "interlocking" are mere figureheads, subject to the will of a small minority of their boards.

Perhaps the greatest harm in the presentation referred to lay in the further unwarranted inference, to which has been given wide publicity, that the vast sum of $25,000,000,000 was in cash or liquid form, subject to the selfish use or abuse of individuals. Such an idea excites the public mind to demand the correction of a fancied situation which does not exist.

The steady growth in the size of banks in New York and Chicago and the frequent merger of two or more banks into one institution have erroneously been designated before your Committee as "concentration." This steady growth and these mergers, however, are a

development due simply to the demand for larger banking facilities to care for the growth of the country's business. As our cities double and treble in size and importance, as railroads extend and industrial plants expand, not only is it natural, but it is necessary, that our banking institutions should grow in order to care for the increased demands put upon them. Perhaps it is not known as well as it should be that in New York City the largest banks are far inferior in size to banks in the commercial capitals of other and much smaller countries. The largest bank in New York City today has resources amounting to only three-fifths of the resources of the largest bank in England, to only one-fourth of the resources of the largest bank in France, and to less than one-fifth of the resources of the largest bank in Germany. As the Committee is aware, in New York City there are only three banks with resources in excess of $200,000,000, while there are ten such institutions in London, five in Berlin, and four in Paris.

It is also perhaps not sufficiently recognized that, even as it is, American banks have not fully kept pace with the development of American business. Hundreds of the financial transactions of today are so large that no single bank commands sufficient resources to handle them. This is especially true with respect to the great public utilities which are essential for the development and welfare of the community. Even our largest banks are seldom able separately to extend the credit which such undertakings require, no one national bank being permitted by law to loan in excess of 10 per cent of its capital and surplus to any one individual or concern. When it is remembered that literally hundreds of corporations in this country are now obliged to borrow annually sums of a million dollars and upward apiece, it is obvious that the size of our banks must grow to keep pace with this demand.

Likewise, with respect to the tendency to co-operation among banks, noted especially since the panic of 1907, we believe that further statistics of interest on this point can be made available, such facts going to show, first, that since 1907 co-operation has been more active by reason of the lesson which banks in all large cities then learned, that, for self-preservation, they could not—as is possible in other countries—rely upon a strong and elastic banking system, but must gain such protection by concurrent action; and, second, that such co-operation is simply a further result of the necessity for handling great transactions. There are not a few railroad bond issues each

exceeding $100,000,000; the American Telephone and Telegraph Co. recently has announced one of $70,000,000. The two traction companies operating the subways in Greater New York are planning to bring out aggregate issues of $220,000,000. The Attorney-General's recent approval of the Union Pacific settlement calls for a single commitment on the part of bankers of $126,000,000. So that, if transactions of such magnitude are to be carried on, the country obviously requires, not only the larger individual banks, but demands also that those banks shall co-operate to perform efficiently the country's business. A step backward along this line would mean a halt in industrial progress that would affect every wage-earner from the Atlantic to the Pacific.

We lay perhaps especial stress upon this point, because of what seemed to us a readiness upon the part of your Committee to adopt the idea that in such co-operation by bankers there lies the germ of something sinister and dangerous, and that, to quote once more from House Resolution No. 504, such co-operation has been developed to the extent that "these groups of individuals" can "prevent competition with the enterprises in which they are interested, to the detriment of interstate commerce and of the general public." So far as our observation and experience go, we can make the positive statement that, except under unfavorable money-market conditions, we have never heard of any responsible and deserving individual, firm, or corporation being unable to secure ample credit.

Many questions were asked before your Committee as to the wisdom in having representatives of private banking houses sit upon the boards of corporations whose securities the same bankers frequently offer for sale. This practice, which has been in vogue abroad ever since the creation of limited companies, has arisen, not from a desire on the part of the banker to manage the daily affairs of the corporation or to purchase its securities more cheaply than he otherwise could, but rather because of his moral responsibility as sponsor of the corporation's securities, to keep an eye upon its policies and to protect the interests of investors in the securities of that corporation. For a private banker to sit upon such a directorate is in most instances a duty, not a privilege. Inquiry will readily develop the fact that the members of the leading banking houses in this country—and it was the leading houses only against which animadversions were directed—are besought continually to act as directors in various corporations, whose securities they may handle, and that in general

they enter only those boards which the opinion of the investing public requires them to enter, as an evidence of good faith that they are willing to have their names publicly associated with the management.

Yet, before your Committee, this natural and eminently desirable relationship was made to appear almost sinister, and no testimony whatever was adduced to show the actual working of such relationships. It is easy to overlook the fact that practically all the railroad and industrial development of this country has taken place, initially, through the medium of the great banking houses. Were it not for the opportunities provided by these houses, it is difficult to imagine how the great transportation systems and industrial plants of the country could have been created.

Another line of your inquiry, certainly pertinent to the general subject, was as to whether "the marketing of the securities that from time to time have been issued by interstate railroads and industrial corporations has been by competitive bidding or otherwise." On this matter we are pleased to submit certain considerations which, we are confident, are borne out by the facts: First, in general and over a period of time the sale of such securities is invariably subject to the competition of market conditions. We have not heard of an instance where any corporation failed to secure the benefit of a price for its issues as excellent as conditions at the time warranted. Second, in most of the leading commercial securities state public-service commissions pass with great care upon the prices at which the securities of all transportation and public-utility corporations are sold. Third, competitive bidding, in the sense of having railroad and industrial securities offered practically at public auction, as in the case of municipal securities, is seldom or never practiced.

The reasons against such practice are plain. Such corporate issues have neither the security, the steadiness, nor the general confidence possessed by municipal bonds, and while in good times it is possible that they might be subscribed for at public auction, in bad times there would be no one to bid for them. It is practically inconceivable that a municipality should go bankrupt and make permanent default of its obligations. Quite otherwise is the case with railroad or industrial corporations. Should these latter appeal directly to the proverbially timid investor, there can be little question that in times of stress support would be totally lacking. We should have the spectacle of numberless corporations failing for lack of strong financial or banking support.

Still another consideration inducing large corporations to appoint fiscal agents is that frequently such corporations are obliged to undertake operations of such magnitude and complexity over a series of years that they must invoke uninterruptedly the best financial advice obtainable. An operation like that of the Pennsylvania and Long Island railroads in tunneling respectively the Hudson and East rivers, and building an enormous terminal in the heart of New York, involved the expenditure of, say, $200,000,000, and, from inception to completion, occupied the best part of a decade. The unwisdom of embarking upon such a development and of relying through good times and bad, panic periods and otherwise, upon the sale of $200,000,000 of bonds by auction to the public, could hardly be characterized, even if it were conceivable.

As the final point of this memorandum we venture to submit the consideration that in a strong public opinion, such as exists in this country, there lies the greatest safeguard of the community. The public, that is, the depositors, are the ones who entrust bankers with such influence and power as they today have in every civilized land, and the public is unlikely to entrust that power to weak or evil hands. Your counsel asked more than one witness whether the present power held by bankers in this country would not be a menace if it lay in evil hands. Such an inquiry answers itself. All power—physical, intellectual, financial, or political—is dangerous in evil hands. If Congress were to fall into evil hands the results might be deplorable. But to us it seems as little likely that the citizens of this country will fill Congress with rascals as it is that they will entrust the leadership of their business and financial affairs to a set of clever rogues. The only genuine power which an individual, or a group of individuals, can gain is that arising from the confidence reposed in him or them by the community. Every town, large or small, seems to choose a limited number of men (merchants, manufacturers, lawyers, and bankers) to represent it in the management of its chief local industries. Those men are entrusted with such heavy responsibilities because of the confidence which their records have established, and only so long as their records are unblemished do they retain such trusts.

These are axioms which it seems almost idle to repeat. They apply to all business, but more emphatically, we believe, to banking than to any other form of commerce. To banking the confidence of the community is the breath from which it draws its life.

234. RESULTS OF THE MONEY TRUST INVESTIGATION[1]

The Federal Money Trust Committee has completed its work, and its report will now be received by Congress. It is to be regretted that the committee was unable to arrive at anything like unanimity in this report, and it is questionable if it will be of any value in formulating suitable currency legislation. It has long been recognized that Chairman Pujo and his gallant band were compelled to be but spectators in the investigations, while their attorney formulated the report to which the signatures of the members were to be attached.

Three reports in all were submitted; the first or majority report, in which the discovery of a modified trust is reported, is signed by all the Democratic members of the committee; a principal minority report, denying the existence of a money trust, but recognizing a "dangerous concentration of credit," is signed by three Republican members; one Republican member is unable to agree with either report, and submits an individual report, in which he pays tribute to the New York financial institutions.

The majority report, in describing its view of present financial conditions, says that the committee "is satisfied from proofs submitted that there is an established and well-defined identity and community of interest between a few leaders of finance, created and held together through stock ownership, interlocking directorates, partnerships and joint account transactions, and other forms of domination over banks, trust companies, railroads, and public-service and industrial corporations which has resulted in a great and rapidly growing concentration of the control of money and credit in the hands of these few men.

"If by the term 'money trust' is meant a combination or arrangement created and existing pursuant to a definite agreement between designated persons with the avowed and accomplished object of concentrating unto themselves the control of money and credit, we are unable to say that the existence of a money trust has been established in that broad, bald sense of the term, although the committee regrets to find that, even adopting that extreme definition, surprisingly many of the elements of such a combination exist."

In order to restore a condition of financial equilibrium, the committee has drawn up two legislative measures, which it asks to be enacted into law. These measures are designed to wipe out "interlocking" directorates and stock holdings among banks, and prevent

[1]Adapted from an editorial in the *American Banker*, LXXVIII (1913), 670.

the consolidation of two or more National banks, except under the approval of the Comptroller of the Currency. Twenty-two new regulations in all are to be added to the restrictions of National banks, including the prohibition of a person being a director in more than one National bank, the holding of stock of one bank by another bank, the prohibition of security underwriting by National banks, borrowing by a National bank director from the bank of which he is a director, except with certain conditions, and the limiting of the number of directors of National banks.

It also provides for the incorporation of all clearing-houses, which are to be periodically examined by public authorities, and to accept for membership "every properly managed bank or trust company."

235. PROHIBITION OF INTERLOCKING DIRECTORATES BY THE CLAYTON ACT[1]

Section 8 of the Clayton law, passed October 15, 1914, provides that no person shall at the same time be a director or other officer or employee of more than one bank, banking association, or trust company organized or operating under the laws of the United States, either of which has deposits, capital, surplus, and undivided profits aggregating more than $5,000,000; and no private banker or person who is a director in any bank or trust company organized or operating under the laws of a state having deposits, capital, surplus, and undivided profits aggregating more than $5,000,000 shall be eligible to be a director in any bank or banking association organized or operating under the laws of the United States.

The law further provides that no bank, banking association, or trust company operating under the laws of the United States which is located in a city of more than 200,000 population shall have as a director, officer, or employee any private banker, or any director, officer, or employee of any other bank, banking association, or trust company located in the same city.

There are three exceptions to the prohibition against interlocking directorates, besides the qualifications respecting the size of institutions and the population of the places where located. These are: (1) the prohibition does not apply to mutual savings banks which have no capital stock; (2) the director, officer, or employee may be an

[1] Adapted from "Clayton Act Makes Many Changes in National Bank Directorates," *Journal of American Bankers' Association*, VIII (1916), pp. 687–88.

officer where the entire capital stock of one is owned by the stockholder in the other; and (3) the prohibition does not apply to a Class A director in a Federal reserve bank who serves as a director, officer, or employee in a member bank.

Although the Clayton law does not become operative until October 15, stockholders of many national banks took action designed to comply with the new law at the annual meetings held on January 11. As a result numerous changes were made in the boards of directors, particularly in the case of the large banks located in New York, Chicago, Philadelphia, and Boston.

Chief among the changes made in the directorates of New York national banks was the elimination of four bank presidents from the board of the National Bank of Commerce. The board was reduced from twenty-five to twenty-one members, the retiring directors being: Frank A. Vanderlip of the National City, Albert H. Wiggin of the Chase National, Francis L. Hine of the First National, and William A. Simonson of the Second National.

Mr. Vanderlip also announced his resignation from the boards of the American Security and Trust Company and the Riggs National Bank of Washington and of the Farmers Loan and Trust Company of New York.

A. Barton Hepburn, chairman of the board of the Chase National, resigned from the board of the First National and from the board of a Newark institution.

The most radical changes which the Clayton law will enforce will be in the case of the Bankers Trust Company of New York, the directorate of which consists of fourteen national bankers out of a total of twenty-eight. At the January meeting the stockholders took no action, and it was announced that the personnel of the board would be readjusted gradually in compliance with the law sometime before October 15.

The full effect of the law will, of course, not be felt until October 15, when it becomes operative, but bankers who have given the matter consideration deplore the fact that their institutions will be forced to lose the services of some of their very best and most experienced directors. This is true of the small banks as well as of the large.

The injustice of the law is commented upon, especially in cases where a banker serves on the boards of institutions not competing. There are many instances where a banker is a director of a trust

company and a national bank, their business being essentially different in character. Moreover, there are numerous cases where a director serves on boards of banks or trust companies located in distant cities, each catering to a community of its own, and not competing with the other in any way.

Attention has also been directed to the fact that as the law is worded a national banker in New York, for instance, may serve on several boards of out-of-town state banks, while he is prohibited from being a director of any other national institution. This, it is contended, is an unjust discrimination in favor of state banks, for the reason that they will be in a position to obtain the services of high-grade national bankers, while their competing national banks are denied the opportunity of electing these men to their boards.

236. THE ECONOMIC FUNCTIONS OF THE FINANCIER IN MODERN INDUSTRY[1]

By JOHN A. HOBSON

The structure of modern capitalism tends to throw an ever-increasing power into the hands of the men who operate the monetary machinery of industrial communities, the financial class. For large enterprises the financier has always been a necessary man: in the ancient and the mediaeval world he found large sums of money to meet the emergencies of kings and great nobles, ecclesiastical or civil, to furnish military or naval expeditions, and to facilitate the larger forms of commercial enterprises which needed capital. Small financiers, as usurers or money-lenders, have at all times lived upon the irregularities and misfortunes of the farming, artisan, and small trading classes. But not until the development of modern industrial methods required a large, free, various flow of capital into many channels of productive employment did the financier show signs of assuming the seat of authority he now occupies in our economic system. Every important step in the growth of industrial structure has favored the segregation of a financial from a more general capitalist class, and has given it a larger and a more profitable control over the course of industry.

The elaborate differentiation of industrial processes into separate businesses, the concatenation of a long series of different businesses contributing directly to the production of each class of commodities,

[1] Adapted from *The Evolution of Modern Capitalism*, pp. 235–57. (Walter Scott Publishing Co., Ltd., 1898.)

the relation of each member of this series to dependent or subsidiary businesses, each of which is itself a member of another series of separately ordered processes, the interdependence of the most widely divergent manufacturing or commercial processes through the use of some common source of mechanical power, or some instrument of transport, the expansion of local into national and world markets which bring what were formerly separate self-sufficing industrial systems into unity—the working of such an industrial organization implies a delicate and intricate mechanism of adjustments. In order that such a system may work properly and economically there must be an automatic apparatus for the application of economic stimuli and the generation of productive power at points of industrial deficiency, and a corresponding application of repressive checks at points of industrial excess: industrial power must be distributed in some general form throughout the entire organism to be transmuted into special kinds of productive energy where there is need.

This growing necessity of modern industry has reacted in two important ways upon the economic structure—first, by producing a radical change in the structure of the business unit, and, secondly, in giving rise to "a class of pecuniary experts whose business is the strategic management of the interstitial relations of the system."

The quick rise of new manufacturing and commercial business demanded a freer movement of capital than the older business could easily procure; old-established private businesses sought to expand; men with keen wits capable of seizing opportunities rose "from the ranks" and needed the use of capital; vast new forms of enterprise in railroads, mining, etc., demanded larger capital than private finance could furnish. Hence the need of a reformation of business structure upon a basis of co-operative capital, drawn from innumerable private sources, welded into large masses and utilized for profitable industry by able directors of large business enterprises. The widespread increase of wealth from new industrial methods enabled far more people than before to effect private savings; the economy of large-scale production precluded them from setting up in business for themselves upon the small capital they thus commanded, while improved methods of commercial intelligence greatly widened the area of secure investment, tending more and more to separate capital from the presence and direct control of its owners, and to place it at the disposal of big business men who paid interest to its owners for its use.

Thus it has come to pass that in every field of capitalist industry joint-stock enterprise has been rapidly displacing privately owned businesses. So long as small investors had only the alternative of making loans at small fixed rates of interest, or of incurring "unlimited liability" by investment which they could neither watch effectively nor easily withdraw, the growth of co-operative capital was slow. But after "limited liability" was set on a solid legal footing the movement became very rapid and widespread. The application of this new capitalist structure, first to public loans, then to railroad, shipping, mining, and banking enterprises, the enormous expansion of public or "company" development in the supply of municipal services, and, finally, the extension to industrial companies of every sort and size, have revolutionized the character of modern economics and politics. Countless thousands of citizens in America or Great Britain are part owners of lands, railroads, minerals, factories, municipal plants, and public revenues in all parts of the civilized or semicivilized world. Primarily, this signifies a divorcement of political from economic interests for large sections of these nations; politically they are members of a single nation with an area of influence and interest thus circumscribed; economically they are to an evergrowing extent cosmopolitans.

The modern financier may be regarded as the product of the joint-stock company, or corporate form of industry, which is now virtually in possession of the entire field of capitalism in the mining, transport, banking, and large manufacturing industries. The limits of the sound and useful service of the promoters and financiers in constructing and in floating a company consist in a just calculation on actuarial and other bases of the future earning capacity of the business, its capitalization upon these bases, and the distribution of the stocks and shares and their marketing in forms most convenient to the investing public, who are informed of the true nature of the business into which they put their money. An agreed and recognized rate of commission for such work of financial construction and promotion, with a further commission for underwriting, paid either by the vendors or by the company, or both, would be the gain of the promoter and financier most conformable to reasonable business methods. Placing a business upon a basis where it can command more working capital and more bank credit increases its competitive, and in some instances even its industrial, efficiency, and is entitled to payment for this service.

But the actual operation of the promoter and financier in construction of companies and the nature of the gains which accrue to them are not normally confined within these limits. The vendors, promoters, and underwriters of a company are not unnaturally given to calculating in the first place how much they individually and collectively can get out of the business enterprise, or, in other words, how little they can leave to the ordinary investing public whose capital they want to attract. It is their profit and not the interest upon the shares of investors that is the originating motive of most companies, as we have seen.

Now, they may take these profits in three different ways. By overvaluation of the earning capacities of the various plants of amalgamating businesses, of the patents, and especially of the goodwill and other invisible assets, they may bloat out the capital value of the company to the utmost, distributing among themselves in vendors' and promoters' shares and in other payments as much of the more vendible stocks as they can conceal, substituting in this capitalization the consideration of immediate vendibility for future earning capacity. So far as they can succeed in raising the immediate market value of the stocks they have allotted to themselves for services or obtained by the ordinary method of subscription, it will be to their interest to unload these stocks upon the market before the inflated capitalization of the market is effectively exposed.

The motive and effect of these financial arts are to create a false confidence on the part of the ordinary capitalist or investing public which expresses itself in a temporary boom of watered stocks.

This of course does not exhaust the functions of the promoter, especially where an amalgamation or the formation of a "trust" is the object of the company. Here there is much scope for strategic work of a preparatory nature; rival interests must be fused upon terms advantageous to the trust-makers, with much use of bluff, intrigue, threats, bribes, and actual processes of "freezing out." When strong businesses "stand out" they can often obtain an exorbitant price for consenting to come in, and this exorbitance is a large factor in the overcapitalization of the company.

Most financiers or money-dealers, however, are not chiefly engaged in promoting companies, but in getting profits from handling the stocks and shares upon the market. As in company construction, so here the business rests on a real foundation of utility or productivity. This utility consists in using skilled foresight, so as to direct the flow

of industrial capital into the most serviceable industrial channels. For the rises and falls of stocks and shares, so far as they are naturally induced, and rest upon sound business information, are the financial machinery directing the creation of the various quantities of concrete capital required to co-operate with labor in the most efficient working of the various industries. The really useful skill of stockbrokers, billbrokers, bankers, and other financiers who handle stocks and shares, buying or selling them, discounting them or advancing money on their security, consists in intimate knowledge of the industrial and commercial facts that give value to the pieces of paper which they handle—in other words, a knowledge of the relative strength and weakness of the various trades and of the particular businesses which operate in them. It is their function to stimulate and direct the flow of credit, and through credit of actual industrial power, from failing to thriving trades, and from ill-ordered and unprofitable to well-ordered and profitable businesses. To assist in putting capital where it is most wanted is thus the social function of these orders of financiers. The performance of this work requires, not only large and accurate knowledge of fact, but high qualities of combination and of constructive imagination in interpreting the probable course of future movements. Dealing in the most mobile, changeful, and divisible forms of vendible goods, the money market is of all markets the most complex and at the same time the most unified in its structure, and it admits of a high order of specialization. Groups of brokers or financiers attach themselves to particular classes of stocks, the classification being partly local—e.g., South African mines or American railroads.

The "legitimate" business of this finance is to operate the machinery for the distribution of capital by accurate registration and calculation of price movements. Since the limits of calculation are often very narrow, the element of chance or speculation must enter in as a necessary ingredient of the business so far as any individual operation is concerned. But while the ignorance of most amateur investors converts their investments into mere acts of gambling, the professional financier is not properly a gambler. When he departs from "legitimate" finance it is not primarily to gamble but to manipulate prices, so as to assist his calculations. Instead of merely predicting price changes he endeavors to produce them. If he is able in any way to cause and to regulate fluctuations of prices in any class of securities, he can buy at the bottom and sell

at the top, an obviously advantageous method; if he can sit for some time upon a class of stocks, rocking the values up and down at will, he may be able to extract from the ordinary investing public a larger quantity of money than could be got by any single *coup* of company promotion. Any group of financiers furnished with large enough resources may fasten upon a stock, using it either to milk the innocent investing public by preconcerted price movements which deceive them into buying and selling at a loss, or to corner the stock and squeeze other financiers not "in the know" by forcing them to buy stock at monopoly prices in order to fulfil their engagements. But the financiers, who are themselves promoters or directors of a company and have retained large blocks of shares, can play this profitable game at a great advantage. Instead of overcapitalizing a company at construction and clearing out by a single act of "unloading," they may retain their shares and use them for what is euphemistically termed "speculating" on the bourse, but what is in reality an alternate "rigging and depressing of prices." Superior or early access to information affecting the movement of prices gives them their first advantage; this they may supplement by manipulating public opinion through the press; finally, their financial position and control of movements enable them more effectively than outsiders to bull and bear the market. An intrinsically unsound business, with incalculable or fluctuating assets, best lends itself to such operations. A classical example in modern finance is the South African Chartered Company, a wildly speculative venture of such magnitude and superficial possibilities, so well adapted to political and sentimental appeals, as to enable its crafty organizers to plan and execute price movements of enormous range. The advantage enjoyed by financiers "in the know" are well illustrated by the record of the holding of Chartered Shares before and after the Jameson Raid by Messrs. Rhodes, Beit, Rudd, and their intimates in South African finance.

These operations of financiers in managing the play of mobile stocks resembles the keeping of gaming tables; from their standpoint it is business; from that of their clients it is gambling; under normal circumstances and in the long run there is little risk for them—they must win; the amateurs who play with them must lose.

The skilled financier, who makes large gains by "speculative" business in floating companies and planning *coups* upon the Stock Exchange, desires, if he retains any "conservative instinct," to pos-

sess some substantial, profitable stake in the world of finance, some considerable investment in real estate or in regularly remunerative businesses: such holding substantiates his credit, gives him social position and respectability, and so assists his speculative operations, besides furnishing a soft bed on which to fall in the event of some knockdown blow. The master of modern finance does not therefore use all his resources in speculative business, nor does he find it to his interest to impart mobility to every form of investment. In his career he enjoys exceptional opportunities of making or discovering genuinely profitable investment based upon the control of rich natural resources or other protective support. The directors of the Standard Oil Trust or of the East Rand Mines or De Beers do not "gamble" with such stocks, nor do they let out of their hands at any time the control of these profitable businesses: they only speculate with the surplus gains which spring from such "monopolies" and with the cumulative profits of their well-directed speculations.

The financial class, then, as distinguished from the main body of capitalists or amateur investors, grafts upon its legitimate and useful function of determining and directing the most productive flow of capital three methods of private gain, each of which is a corruption and abuse of its true function.

Planning and promoting companies based, not upon economy of industrial or financial working, but upon an artfully enhanced vendibility of shares, they cause a waste of general capital by obtaining an excessive subscription to the company and diverting the excess into their own pockets, thus imparting insecurity to otherwise sound businesses, damaging their credit, and impeding their productive operations. To this waste must, of course, be added the injury wrought by floating "bogus" companies which have no actual foundation in the business world; the wise prevalence of these criminal adventures not only wastes capital, but, disturbing public confidence, further impedes the easy, natural flow of capital throughout the industrial organism.

Creating or stimulating fluctuations of prices in order to contrive corners or to practice concerted *coups* is an even more injurious dislocation of the social machinery of finance; it is a falsification of the automatic register of values expressly designed to determine the most productive application of capital.

Finally, the creation, absorption, and supreme control of the most profitable forms of natural monopoly and other abnormally pros-

perous businesses impart a strength and solidity to the new financial oligarchy which enables it to fasten its hold still more firmly on the necks of the proletariat of capital, who thus, cut off more and more from secure investments, are driven into the "gambling hells" of speculative stocks and shares kept by these masters of finance.

The multitude and magnitude of these interferences with the delicate adjustments of the financial machinery directing the flow of capital involve other indirect consequences of importance. They impart debility and irregularity to the actual processes of production and of commerce under the new order of capitalism. The business of a company whose stock, overappreciated upon construction, is allowed afterward to slide, or is made the sport of gamblers who toss it up and down for private financial purposes, is rendered insecure: the actual flow of capital into it, plundered at the source, is insufficient for its full expansion; attempts to "support the market," by earning good profits through economy of "costs" or other unsound business finance drive the company into difficulties, force it to call up more of its capital, weakening its general credit, while special emergencies impel it to seek advances from bankers and other accommodations.

As "credit" becomes more and more the vital force of modern business, the class that controls credit becomes more powerful and takes for itself as "earnings" a larger proportion of the product of industry. If, however, "credit" were left to the free competition of a large number of bankers and financiers, this control would not imply mastery. In order to comprehend the power of finance we must look a little closer at its structure. In no other business operation is the advantage of a large over a small capital so obvious: nowhere else is the force making for concentration of business so evident. If any limit exists to the "law of increasing returns" in banking, insurance, and finance it is not easily discernible. Great operations of public or private finance, the floating of public loans or great industrial combinations, the contrivance and executions of great movements in the stock and share markets, can only be conducted with the suddenness and secrecy which are requisite to safety and success by financial businesses of the first order of magnitude. Great businesses alone can stand their ground against the larger shocks to the general credit of a nation, or can rely upon their political influence to secure governmental aid in cases of real emergency. Thus it arises that a large proportion of the most profitable business of financiers is

never exposed to effective competition, and the prices they receive for their services are "monopoly" prices: either it is business which they initiate and organize, and for which they charge "what the business will bear," or it is business whose size and delicacy forbid close bargaining, or, finally, it is money-lending, in which advantage can be taken of the urgent needs of the applicant for loans.

A study of the origins and careers of the great American financiers discloses three chief sources of financial power: railroads, industrial trusts, and banking, and the union in the same hands of the control of these three economic functions is an instructive testimony to the nature of the new power. The railroad kings and the great industrial trust-makers are drawn by economic necessities into general finance. The control exercised by American railroads over agriculture, irrigation, mining, city development, has led railroad men into the promotion of all sorts of business enterprises more or less dependent upon railroads, while the tortuous financial history of most roads has necessitated a constant recourse to the general machinery of finance. Though the same is not equally true of the man who makes his pile by the successful operation of an industrial trust, another economic necessity drives him into general finance. The profitable management of a trust depends primarily upon regulation of capital. It is thus impossible *ex hypothesi* for a trust-maker to find full, continuous employment for the high profits he makes by extending the plant and working capital of his own business: such a policy would be evidently suicidal. He must look outside his own business for fields of profitable investments for his profits. If he occupies himself, as sometimes he does, in organizing other industrial trusts in businesses related to his own, his success yields new profits which must seek employment further afield. Thus the profits arising from specific monopolies in the transport or the manufacturing world are logically forced into the more general regions of finance. They form a large and growing fund of free capital which naturally associates itself with the free funds held by bankers, and operates by the ways we have described in fastening a general control of finance upon business that enables the financial class to extract a larger share of the general wealth.

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